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HOW TO CUT PAPERWORK

COMMITTEE ON POST OFFICE AND CIVIL SERVICE

HOUSE OF REPRESENTATIVES

EIGHTY-NINTH CONGRESS

SECOND SESSION

OCTOBER 1966

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LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
COMMITTEE ON POST OFFICE AND CIVIL SERVICE,
Washington, D.C., October 6, 1966.

Hon. JOHN W. MCCORMACK,
The Speaker,
House of Representatives, Washington, D.C.

DEAR MR. SPEAKER: At the direction of the Committee on Post Office and Civil Service, I am transmitting herewith a report prepared by our Subcommittee on Census and Statistics and unanimously approved by the full committee at its meeting today for printing as a House report.

The report is called "How To Cut Paperwork." In addition to the purpose conveyed by the title, the report describes activities of the National Archives and Records Service (NARS) of the General Services Administration and the work done by NARS and other Federal agencies to cut Federal Government paperwork. It is one of a series of reports on this subject by the Committee on Post Office and Civil Service.

The committee members earnestly hope the report will result in saving Federal and private funds by improving paperwork practices.

With best wishes, I am,

Sincerely yours,

TOM MURRAY, *Chairman.*

LETTER OF SUBMITTAL

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CENSUS AND STATISTICS,
COMMITTEE ON POST OFFICE AND CIVIL SERVICE,
October 6, 1966.

Hon. TOM MURRAY,
Chairman, Committee on Post Office and Civil Service, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I am attaching a report of the Subcommittee on Census and Statistics for the approval of the Committee on Post Office and Civil Service. The title is "How To Cut Paperwork." The report describes activities of the National Archives and Records Service (NARS), an agency of the General Services Administration. The authority for the report is House Resolution No. 245, 89th Congress, 1st session, passed March 29, 1965. The resolution assigns congressional responsibility for the National Archives to our committee.

While the authority has existed for some time, and while the Subcommittee on Census and Statistics works closely with the National Archives and Records Service, this is the first report of NARS' functions to be undertaken by us. The purposes of the report at this time are: (1) to continue efforts to reduce the billions of dollars spent annually for Federal Government paperwork; (2) to discuss the work of NARS and other agencies, and thereby point out methods of cutting paperwork; and (3) to fulfill the committee's responsibility for the activities of the National Archives.

The committee members believe that all too frequently the good work of records preservation done by National Archives may be more commonly recognized and understood than the strenuous efforts of NARS to reduce Federal Government paperwork. The members are hopeful that this report will provide a fuller understanding of NARS work and at the same time further stimulate Federal paperwork reductions by department and agency heads with consequent significant financial savings.

The subcommittee gratefully acknowledges the cooperation and assistance of the General Services Administration, the National Archives and Records Service and staff, and each agency that has improved paperwork practices.

Cordially,

ROBERT N. C. NIX, *Chairman.*

CONTENTS

Union Calendar No. 975

89TH CONGRESS, *2d Session* } HOUSE OF REPRESENTATIVES { REPORT No. 2197

HOW TO CUT PAPERWORK

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Mr. MURRAY, from the Committee on Post Office and Civil Service, submitted the following

REPORT

69-732—66——2

CHAPTER I. HIGHLIGHTS

Government today is big business to a degree scarcely dreamed of by our Founding Fathers. It is so big that little of it is conducted on a face-to-face basis. Almost all of it is conducted by systems of paper communications, transaction forms, reports, instructions, and other record-making and record-using techniques. A large part of the time of all employees of the Federal Government is spent in the processes of paperwork. The cost is staggering, $8 billion.

Yet no Federal agency can lay claim really to managing its paperwork.

What of the problems and promise of paperwork? The highlights below, discussed in the report, tell the story.

THE PROCESSES

- It takes 360,000 different forms, prepared in 15 billion copies to keep the wheels of government turning. It is a rare procedure which does not require the use of at least one form. (See p. 18.)
- Almost three-fourths of all Federal records are forms, and half of all Federal reports are forms. (See p. 18.)
- In fiscal year 1966, the Federal Government is believed to have spent over $53 million to print its forms. In addition, tests indicate that 20 times as much is spent on the clerical effort of using them. (See p. 18.)
- The billion letters produced annually in the Federal Government cost approximately $1.5 billion. They vary from an average of 25 cents for a form letter to an average cost of $2.75 for an individually typed letter. (See p. 19.)
- $100–$200 million could be saved by applying more efficient correspondence methods and techniques. (See p. 20.)
- President Franklin D. Roosevelt received 140,000 letters a year. President Kennedy received 307,312. The mail to the President has how increased so much that President Johnson received 825,750 letters last year. (See p. 20.)
- It was estimated, in 1963, that directives cost the Federal Government $400 million for 1 million pages a year. There are now over 2.6 million pages a year. (See p. 20.)
- Reporting is an area of paperwork in which the Government presently invests approximately $1 billion a year. This cost breaks down to $550 million annually for routine management reporting, $250 million on special reports, and the balance in other reports required. (See p. 22.)
- Paperwork costs are not irreducible; they can be cut substantially. Agreement on this principle is the beginning of paperwork improvement. (See p. 34.)

THE RECORDS

• Making four copies isn't really the costly thing. It's keeping them that increases the expense. (See p. 30.)

• Records holdings now total more than 25 million cubic feet. Throwing away a page a second of these records it would take 2,000 years to discard them all. (See p. 16.)

• Although the situation is better than it was 15 years ago, there are still (*a*) too many records—nearly one-fourth of the total volume—designated by the agencies as permanent, (*b*) too many permanent records scattered and intermixed with temporary records, and (*c*) too many temporary records being kept beyond their usefulness. (See p. 15.)

• In 1955, the average life of a Federal record was 13 years. In 1966 the average life of nonpermanent records dropped to 9 years. (See p. 15.)

• A target of 2 to 3 percent permanent records is obtainable through archival appraisal. (See p. 15.)

• Though annual records creation has greatly increased through the years, disposal and housing techniques have improved, resulting in a reduction of square feet of space used. (See p. 16.)

• Federal Records Centers are big money savers. The cost of Federal Records Center space is 21 cents per cubic foot of records; the cost of office space is $3.85 per cubic foot of records. The Federal Records Center program savings, plus the avoidance of expenditures which would otherwise have been incurred, may reasonably be estimated at $250 million for the 1951–66 period. (See p. 17.)

THE NEW INFLUENCES

• Automation brings with it new paperwork costs—the costs required to transform data from record language to machine language. (See p. 37.)

• It costs $550 million a year to prepare "input" to "feed" the machines. (See p. 38.)

• Agencies find that they spend $2 and $3 per page to prepare it for the machine (code, punch, verify, control, etc.). At that rate, $550 million would pay for automating less than 100,000 cubic feet of the 4.6 million cubic feet of records now being produced annually (i.e., 220 million pages of 10 billion pages produced annually). (See p. 38.)

• A computer can make a stack of records 20 feet high each day. Working on full weekly 7-day shifts (less five holidays) this stack could be 1.3 miles high in a year. This is one computer. The Federal Government has 2,600 computers. (See p. 7.)

• Next to the computer as a force of paperwork change has been the rapid-copying machine. One copy in 10 is now rapid copy. (See p. 7.)

• In a growing organization, a records program must run very fast to stand still. (See p. 8.)

• File stations have increased in number over four times since 1951. There are 255,000 employees in the Federal Government who spend a majority of their time filing records. This is a greater number than the troops we have in Germany. Even so, time from primary tasks is taken for filing. (See pp. 7 and 29.)

• Many persons feel that insistence on accounting for every penny at several different levels in several different ways has driven organizations down a long paperwork road. This situation is changing. (See p. 9.)

THE SUCCESS STORIES

• Moratorium on purchase of new filing cabinets saved over $3 million. (See p. 17.)

• Technical assistance by the National Archives and Records Service (General Services Administration) to Federal agencies resulted in $10.8 million savings in 1966. (See p. 15.)

• Forty outstanding Federal employees have been honored for savings in paperwork in their agencies totaling over $200 million. (See p. 49.)

• Specific projects in agencies have shown the possibilities—a selection:

Navy and Marine Corps eliminated 18,402 directives.

U.S. Maritime Administration helped industry to eliminate 400 types of bills of lading ($8 million savings to shippers).

Agriculture eliminated 318 reports saving $630,296.

Federal Aviation Agency reduced directives files by 5.5 million pages (held by 45,000 employees).

Veterans' Administration streamlined mail handling, saving $460,000.

Additional specific projects are cited in subsequent pages.

WHAT NEEDS TO BE DONE

Obviously there is real promise in utilizing the techniques of paperwork management. This is true especially if the techniques are applied from a total systems point of view. Some things have been done but much more is needed.

The importance of paperwork and records in our day is best understood when viewed in perspective. Dr. Wayne C. Grover recently retired as Archivist of the United States passed along a perceptive observation.

He stated that public records have a unique importance for governments. In earlier centuries they were used mainly to document the obligations of citizens to their governments. With the rise of democratic governments, however, it became even more important to record the obligations of a government to its people.

To do an adequate job, in the depth that paperwork management deserves, there follows a summary of the chapter devoted to the committee's recommendations.

SUMMARY OF RECOMMENDATIONS [1]

• A professional staff fully trained and experienced in paperwork mangement should be available to the head of each Federal agency.

• Paperwork management should be used as a method of providing continuous oversight of agency performance.

• Heads of agencies should require a regular recurring review, on a systems basis, of all of their major paperwork pipelines with a view to

[1] See p. 43 for recommendations.

(*a*) eliminating delays, (*b*) substantially reducing effort and (*c*) providing better service to the public.

- Heads of agencies should aggressively maintain a proper climate of teamwork and cooperation between paperwork analysts, on the one hand, and activities they serve, on the other.
- All agencies should improve the paperwork processes used to provide key data to management.
- Fewer but better records should be produced by Federal agencies.
- The burden of paperwork imposed on citizens by the Federal Government should be greatly reduced.
- Better interagency paperwork processes should be developed as a Government-wide project, beginning immediately.
- Paperwork implications of legislation should be reviewed by all agencies, so that appropriate remedies can be made by the Congress.
- Special emphasis should be given to applying source data automation methods, aimed at reducing the cost of using computers.
- Greater support [2] should be given to the National Archives and Records Service management program.
- Professional training and refresher courses should be established, as part of the civil service training and career development programs, to assure a high level of competence among paperwork analysts.
- A broad-gaged, organized program of research into all fields of paperwork practices and systems should be authorized and financed during the coming fiscal year. A Federal center for research in paperwork should be considered.
- Productivity standards for clerical employees should be developed without delay, with first priority of emphasis being given to clerical processes related to the new computer technology.

BACKGROUND

Paperwork management, as a management technology, began slowly. It was largely an outgrowth of the unrelenting demands in Government during and following World War II and Korea. This experience found official expression in the Federal Records Act (44 U.S.C. 391–396), passed unanimously by the House and the Senate and approved by President Truman on September 5, 1950. This act was the first Federal statute to give legal authority for a comprehensive paperwork management program. Unlike prior laws relating to records, the act of 1950 does not concern itself solely with the archival aspects of records administration. It calls for management controls on the creation and maintenance of records, as well as on their retirement and disposition. Aimed at economy and efficiency in Federal paperwork and recordkeeping practices, the 1950 law leaves no doubt as to the responsibility for charting a course of action and for seeing that it is followed.

Legislative steps

The need for a comprehensive paperwork management program resulting in the Records Act of 1950, had long been recognized. Investigations undertaken by the National Archives in the midthirties revealed chaotic recordkeeping practices widespread throughout the

[2] See committee recommendation, p. 106 of previous report, the "Federal Paperwork Jungle," dated Feb. 18, 1965.

Federal agencies. Duplicate files were multiplying from records created without restraint, while most agencies made little effort to determine actual need or appropriate filing methods. Although the Records Disposal Act of 1943 (44 U.S.C. 366) made possible the orderly retirement of records, it imposed no requirements on agencies with respect to controlling nonessential papers and improving filing methods; and the vast quantities of transient ill-kept files were making it increasingly difficult for the Archives to identify documents worthy of preservation.

With the advent of World War II and the establishment of the emergency agencies, the damaging effects of mismanaged files were further aggravated. The cost of filing space and equipment required for the accelerated records growth was now a major Federal expenditure, and the excessive recordkeeping costs were certain to increase unless effective measures were taken to get at the root of the problem. Executive Order 9784, issued September 25, 1946, recognized the state of files by requiring all agencies to conduct "active continuing programs for the effective management and disposition of records." But this order fell far short of a solution. Indeed, many agencies gave it token compliance, according to the first Hoover Commission. There was still no definitive role of staff responsibility in paperwork management; questions were yet unresolved as to central guidance for the program; the respective responsibilities of staff and operating agencies had not been delineated; and no decision had been reached on the best means of providing low-cost storage for inactive records not needed for permanent preservation.

When the first Hoover Commission on Reorganization of the Executive Branch of the Government was established in 1948, Federal records holdings totaled 18½ million cubic feet, and the Government was spending more than a billion dollars a year on recordmaking and recordkeeping. Recognizing the possibilities of achieving significant savings in this costly activity, the Commission set one of its 24 task forces to a study of the problem. The task force report published in January 1949 made an impressive case for records management. Citing numerous statistics in support of the needlessly high cost of records, the causes of this condition, and the burden on the American taxpayer, the task force recommended a Federal Records Management Act that would give comprehensive legal authority for the creation, preservation, management, and disposal of the records of the U.S. Government.

The evidence spoke for itself; and action came rapidly and decisively. Following the Hoover Commission's recommendations, several bills were introduced in both Houses of Congress in the spring of 1949. From these bills emerged the Federal Records Act of 1950 with a unanimous congressional approval that bode well for its success.

The second Hoover Commission submitted in 1955 a paperwork management report that described the successes and shortcomings of the agencies and GSA in meeting their responsibilities under the Federal Records Act. The report emphasized the need for action in the broader paperwork field.

Action taken

Under the 1950 law, central staff responsibility for the records program is vested in the General Services Administration which is charged with developing and improving standards, procedures and

techniques with respect to the creation of records; the organization and maintenance of current records; and the disposition of records no longer needed for current operations. To the General Services Administration is also assigned the responsibility for establishing and operating Federal records centers as well as the National Archives, and for evaluating the effectiveness with which agencies manage their records.

Responsibility for the paperwork management program was assigned to the National Archives and Records Service (NARS) after canvassing the possibilities of establishing a separate agency or a separate service within GSA.

NARS began to establish Federal records centers, to make reconnaissance surveys of Government practices, and to monitor contracts awarded to management engineering firms. Because of the constant demands of Federal agencies, and at the informal urging of the Congress, NARS also instituted a program of direct technical assistance comprising surveys, audits, and technical workshops.

But the vesting of an overview staff responsibility for records management in the Administrator of the General Services Administration does not relieve other agencies of any records management duties. On the contrary, the law places squarely upon the head of each agency the direct obligation to take an active part in bringing about efficient records management (or "paperwork management" as it has become known due to the emphasis on "creation") by:

1. Adequately and properly documenting its organization, functions, policies, decisions, procedures, and essential transactions.
2. Maintaining a continuing program to achieve efficiency and economy through controls over the creation, maintenance, use, disposal, and retirement of its records.
3. Preserving records of lasting value; and protecting all official records against loss, destruction, and unlawful removal.

In reviewing the provisions of the Federal Records Act of 1950, this committee has been continually impressed by the foresight of the law. In effect, the Federal Records Act is a challenge to all Federal agency heads to control the paper explosion that threatens to engulf governmental information systems.

CHAPTER II. THE INFLUENCES OF OUR TIMES

Since 1955 the Federal paperwork picture has been subjected to a number of influences that have changed the very meaning of all antipaperwork programs in the United States, in the Government and out.

THE COMPUTER

The greatest producer of paperwork change is the computer.—In the period of time taken by a conventional typewriter to produce a stack of papers 20 feet high, a large computer will produce a stack 7,200 feet high. Thus, by sheer power and speed, computers are adding to records volume.

For example, machinable forms as the input documents to computers create records at a ratio of 100 to 1 faster than typing separate forms previously used. Also, in the field of records disposal, magnetic tapes present new problems and master tapes require new retention solutions.

On the other hand, there are hopes of paperwork savings as reports become automated. Integration of information is making people talk about "information management" as a new term to supersede "reports management."

Automation is affecting directives favorably in that the indexes to directives are being put on computers for classification and retrieval. Files are being miniaturized and coded in machine language.

Some correspondence is being automated. Already much mail handling is being done by this means. However, the benefits of automation have scarcely been seen. Experts now feel that approximately 85 percent of all work done in offices can and probably will be automated.

Understanding and control of this new paperwork influence is urgent. Computers should be a means of reducing paperwork and not a cause of aggravating the problem.

RAPID-COPYING EQUIPMENT

Next to the computer as a force of paperwork change has been rapid-copying equipment.—Once documents are made easily, cheaply, and quickly, they are bound to multiply. Organization after organization has been aghast at the number of copies their copying equipment turns out. One copy in ten is now "rapid copy."

Unfortunately, most of the copies go into the files. This has caused a filing revolution. In 1951 the National Archives and Records Service made a files study of GSA. There were about 150 file stations. Today there are over 450. In 1952 NARS made a files study of the State Department. Then there were over 200 file stations. Today there are over 1,000. Anyone who wants to in most organizations can today start a file. Everyone with a secretary has a file. The duplication of information among these files is phenomenal.

69-732—66——3

Twenty years ago most files were maintained by full-time file clerks. Today many files are kept on a part-time basis by secretaries, stenographers, lab assistants, accountants, aids, and the like. Recordkeeping is beginning to take time needed in other jobs. It is quite possible that the techniques of automated data retrieval and wider use of data systems will help to reestablish the balance. This proliferation of files makes the records manager's job trebly difficult. Standardization of subject categories is very hard to achieve, and disposal is made more difficult (actually, what to keep is made more difficult, and an integrated network of filing stations is almost impossible).

SIZE OF ORGANIZATION

Another force of paperwork change is the growing size of organizations.—The small organization doesn't need a full-time records manager. No one seems to have an exact notion at what point in size it pays an organization to manage its records with full-time employees. Yet organizational size affects records volume more than any other environmental factor.

It is size that determines length of communication lines—lines that give an organization its sometimes almost endless chains of command. The organization that doubles in size will more than double its records. Great masses of records have forced most large organizations to start records programs. In a growing organization, a records program must run very fast to stand still. It is size, too, that requires more specialization within the paperwork management program.

Size especially affects the subject categories of a filing system. A small file can get along with a handful of primaries and secondaries. Let the file grow and at once more secondary headings have to be supplied and tertiaries begin to grow like wild flowers. Multiply this by 100 file stations and a situation develops that few records managers can cope with.

UPWARD SPIRALING OF PAPERWORK COSTS

Another factor of paperwork change is the spiraling upward of paperwork costs.—This is partly due to the increase of reports and directives, but whatever the cause, rising costs disturb management. When management get sufficiently disturbed, something happens—like having a paperwork management program where none existed before; like having one special study after another being made.

The Nation's clerical employees have grown in number about five times faster than the labor force as a whole. In 1930, 8 percent of the laboring force was clerical. In 1965, 35 years later, it was 16 percent. Another doubling in another 35 years, management cannot afford.

The productivity of the clerical element is hard to compute. Increasingly, productivity studies are being undertaken to determine how productivity can be measured. Undoubtedly, the result of these studies will start new trends in the use of systems and equipment.

Each factory worker was immersed in an $8,000 equipment investment in 1900. By 1960, each was surrounded by a $64,000 equipment. This addition of new and specialized equipment, and the systems which go with the new machines, are the principal reasons for the spectacular

increase in factory worker productivity. The office worker had about a $300 equipment investment in 1900. By 1960, this had only increased to about $800, mostly in the last 10 years as a result of the computers. As that investment gets greater undoubtedly productivity will get greater. Also new systems will be needed.

RISK A LITTLE; SAVE A LOT

Another singular force of paperwork change is the realization that if an organization will take the risk, much paperwork can be avoided.—Here, industry seems more daring than Government. In general, organizations do not need to do so much vouchering, inventorying, or receipting. Transactions can be sampled, or at least brought under systematic controls. (One of the oldest and best known of systematic controls was the introduction of the cash register. Codes and running totals could substitute for individual item accounts.) Many persons feel the need to protect property and funds has driven organizations down a long paperwork road by an insistence on accounting for every penny at several different levels in several different ways.

A willingness to take seemingly greater risks lies behind dispensing with retaining invoices. It lies behind the sending of blank checks with orders. It lies behind the dispensing with inventory control on a detailed paperwork basis. It lies behind dispensing with credit checks. It lies behind nonauditing of transactions of less than $5—except for certain sampling and systematic safeguards.

Several of the Nation's major domestic airline carriers are currently making settlements of interline passenger revenue payments based entirely on estimates made from sample information.

There are probably as many as 100 projects of this risk-taking nature now going on in the United States, measuring the cost of control versus the cost of undetected or unresolved errors. The secret often lies in the fact that good systems provide new and less expensive methods of control. A control that costs as much or more than the situation controlled (such is an audit of a $1 account at an audit cost of $5 to $10) is evidence of poor paperwork systems and unimaginative management.

CHAPTER III. THE MEANING OF PAPERWORK MANAGEMENT

WHAT IS IN A NAME?

The concept of the Federal paperwork management program begins with the very word "records" itself. The definition of this word, originating in the Records Disposal Act of 1943 and carried forward in the 1950 law, can leave no doubt that it includes all documentary material in every agency of the executive branch of the Government:

> * * * all books, papers, maps, photographs, or other documentary materials, regardless of physical form or characteristics, made or received by any agency of the U.S. Government in pursuance of Federal law or in connection with the transaction of public business and preserved or appropriated for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the information value contained therein * * *.

This all-inclusive language includes nonconventional files as well as conventional files, extending stewardship for records to data recorded by electronic processes scarcely heard of when the term was defined. With the advancement of computer technology have come such other terms as "management information systems, data control, source data automation and information distribution systems," all suggesting a possible distinction between records and data and/or information. Although such distinctions technically possess some validity, they are meaningless in the broad concept of paperwork. For records, as defined by law, are everything that contain data or information of any kind and in any form; and it is within this broad meaning that the act of 1950 authorizes a management program. Management programs are all parts of a whole. The terms: "Paperwork management," or "Records management," or "Records administration" have been useful for focusing attention on certain types of techniques. Nevertheless, they are all part of management analysis. There are no neat compartments in the field of office systems. There should be only a general unity.

TOTAL SYSTEMS CONCEPT

No Federal agency manages its total paperwork. Very few even attempt to, judging by the value they place on systems work in the organization, or the way that systems effort is organized. Yet, led by such internationally known authorities as Peter Drucker, heads of Government agencies are being urged to turn to a "total systems concept."

Stated in its simplest form, the "total systems concept" has been characterized under the following five guidelines by the National Archives and Records Service:

1. *Substantive program needs should be analyzed first.*—The analysis includes: Identification of clients, objectives in relation to the clients, measures of progress, and development of simple but timely procedural steps.

2. *Key data for decision should be a natural output of systems.*—A few data on a consistent base, and which can be correlated in a number of ways, are the most useful.

3. *Relate accomplishment to people and people to reasonable objectives.*—Systems which keep people aware of their contributions to managerial goals and their part in the specific contributions are keystones to good management.

4. *Establish norms of cost and effort.*—Even the most sophisticated of professional activities can operate in a manner which relates to norms.

5. *Provide adequate service support and specialized technical assistance to substantive programs.*—A great program officer is one who can use the supporting and specialized assistance available. A good organization is prepared to give the right support and right assistance at the right time. A thorough knowledge of the needs of the substantive program makes it possible to supply effective support.

Although the systems approach should control an agency's entrance into its paperwork problems, actually systems work is a major discipline like the law, or medicine. When a person has a serious infection in a foot, he is apt to want a foot specialist rather than a doctor generalist. When a person is engaged in a patent lawsuit, he is apt to want a patent specialist rather than a lawyer generalist. So it often is with that portion of the systems area, generally when one has a paperwork problem, he needs a paperwork expert.

PAPERWORK MANAGEMENT FIELD OF ACTIVTIY

Paperwork management, as defined by the National Archives and Records Service, and is understood generally in government, is comprised of a number of techniques. These techniques are applied from the point of view of "total systems" To a considerable degree employees need to be told for repetitive work what to do and how to do it; these links between plans and actions are maintained through information going downward as instructions, therefore requiring some kind of directives management. In order to process paperwork economically it is necessary to understand how procedures have a form as their backbone; forms management analyzes this requirement as do techniques for establishing paperwork procedures. Most supervisors and department heads manage their responsibilities in part from the information coming upward through the organization as reports; a program that examines the creation and distribution of these reports is called reports management. Sending and receiving communications require effective coordination with mail rooms to secure prompt action. This is accomplished by a program of mail management. Keeping an eye on le ter-writing costs, and the quality of letters, calls for correspondence management.

Eventually forms, correspondence, reports, and instructions must be filed in such places as cabinets, shelves, or on film. To prevent dispersal of the key bits of information in the files and to permit easy access to it, a program of files management must be followed. In the event of emergency situations, only a small section of these records is necessary to carry on the work of the organization; identifying and protecting these basic records is part of files management.

As time passes, the information in the records has less and less administrative referral value. Hence, it is desirable to retire noncurrent records from high-cost office space and equipment to low-cost facilities. More likely the records can be destroyed quickly if their value has been put in writing; this program is called records disposition.

All Federal agencies would do well to subscribe to this definition, within its systems context and management framework.

CHAPTER IV. HOW THE GENERAL SERVICES ADMINISTRATION THROUGH THE NATIONAL ARCHIVES AND RECORDS SERVICE PROVIDES PAPERWORK AND RECORDS MANAGEMENT

The passage of the Records Act of 1950 has involved the General Services Administration through its National Archives and Records Service in central staff direction of a program for managing the creation, maintenance, and disposition of records holdings now totaling more than 25 million cubic feet. The NARS activity is carried out through two principal components of organization:

A. The Office of Records Management concerned with standards, automation, technical assistance to Federal agencies in all phases of paperwork and records management, and the evaluation of the effectiveness of the agency records programs, and

B. The Office of Federal Records Centers concerned with the management of inactive records.

The GSA organization for carrying out its central staff responsibility in paperwork management is graphically depicted in the organization chart of NARS in appendix D.

OFFICE OF RECORDS MANAGEMENT

The NARS Office of Records Management promotes three programs. The objectives are to bring about fewer delays, better quality, and less cost in Government recordkeeping and recordmaking.

Standards and guidelines

NARS develops and publishes guidelines for use by Federal agencies. They are promulgated through regulations, through educational handbooks, and through workshops on specific paperwork management subjects.

The regulations are aimed at top management to demonstrate the value of paperwork systems as a management resource to Federal agencies.

The handbooks are most popular with management analysts and other staff personnel, to help them keep pace with the rapidly developing technology. The workshops are designed for supervisors, to help them improve their day-to-day working competence.

During the last 5 years the standards program has been very productive. Similarly, the workshops have been demonstrable money savers. This is because NARS insists that the "price of admission" for each participant is that he will undertake an improvement project when he returns to his agency. Based upon the sample reports NARS has received, these improvement projects have saved 36 man-hours for every man-hour spent by participants in the workshop. The savings for the source data automation workshops exceed this average. It should also be noted that all workshop material is available to agencies for their own use.

GSA has issued some general standards, particularly in regard to the creation and keeping of records. These standards have concentrated first on those paperwork activities which can be most simply covered in specific terms. Guidelines relating to professional techniques have been left largely to the "Handbook" series. As there develops sufficient consensus among management analysts in Government and industry regarding application of management principles, it is the intention to expand the official standards accordingly.

NARS evaluations

The purpose of the evaluation is fourfold:

(1) Determine the current status of records and paperwork management program development within the agency.

(2) Measure the program against statutory requirements, regulations, and other standards and criteria.

(3) Gage the effectiveness of the program in meeting management and operational needs of the agency.

(4) Propose such actions as may be necessary to achieve compliance with the statutes or regulations and to promote program effectiveness.

The evaluation provides the agency with an objective report of records and paperwork management program conditions, both good and bad. It charts the course for needed advancements and improvements.

The NARS evaluation has an impact in two areas: (1) NARS-agency relationships and (2) internal agency relationships. Through the evaluation, NARS-agency relationships are clarified and strengthened. In addition to providing a critique on the agency's paperwork management program, the evaluation serves as a prime promotional device for informing agencies of NARS interests and responsibilities in Federal records management and operating officials. These officials receive a broad insight as to the nature of paperwork management and the role it can play in the overall agency management scheme. These officials are informed as to the meaning of a "paperwork management program" as envisioned by the Federal Records Act of 1950 and the GSA regulations.

Followup within the agency itself, as a result of an evaluation has a profound effect on the format, scope, content, and placement of the agency paperwork management program.

Proposals stemming from the evaluation often result in organizational changes, new and revised functional assignments, realinement of management relationships, and the initiation of projects to improve the planning, coordination, and administration of paperwork management in the agency. Agency records management standards, criteria, and procedures are affected by the evaluation. Recommendations cover the development of needed performance and procedural requirements and the strengthening of existing ones. Resulting improvements affect product quality, in-process time, resource utilization, and other key factors influencing paperwork performance. Legislation, regulations, agency policy, management concepts, and operational procedures determine the characteristics of agency paperwork products. Evaluation recommendations can involve any or all of these elements. Consequently, an evaluation can shape the product characteristics when needless, burdensome, and expensive paperwork operations are eliminated or improved and streamlined.

Improved capability of agency personnel results from evaluations. While savings and increased efficiency in paperwork activities are an immediate target of the evaluation, the ultimate objective is to develop an essential paperwork management capability. This means that the agency itself will be able to detect and solve paperwork problems. More importantly, it means that the agency will look at data and document needs in the perspective of its assigned mission. In some instances, evaluation proposals may be beyond the capability of present agency personnel to implement. NARS provides technical assistance in such cases, upon request.

Technical assistance

A third method of carrying out the objectives is through giving help to those agencies which ask for it.

The level of activity for the technical assistance program has continued to increase over the last few years. NARS projects now total over 100 a year.

Work in reducing delays, or in upgrading quality, is considered to be as significant as the results expressed in terms of dollars. In almost all cases, it has been possible to achieve all three goals: less time for paperwork processing, better quality, and reduced costs. A tally of dollar savings produced over the last 5 years indicates the following:

[In millions]

1962	$1.2
1963	8.6
1964	7.0
1965	17.3
1966	10.8

OFFICE OF FEDERAL RECORDS CENTERS

The National Archives and Records Service is spearheading other records management programs. Those relating to appraising records for permanent retention, retirement of records to records centers, use of filing equipment, and use of microfilm, are operated by the Office of Federal Records Centers.

Records appraisal

The review of records to identify those having permanent value is an activity of NARS that predates the 1950 Federal Records Act. Although the situation is better than it was 15 years ago, there are still (*a*) too many records—nearly one-fourth of the total volume—designated by the agencies as permanent, (*b*) too many permanent records scattered and intermixed with temporary records, and (*c*) too many temporary records being kept beyond their usefulness.

With respect to (*c*) above, there is good reason to believe that in 1955, at the time of the second Hoover Commission, the average life of a Federal record was 13 years. This, of course, excludes permanent records. There is reason to believe that in 1966 the average life has dropped to 9 years, and it could continue to drop to 7 years.

In 1962, the appraisal program was revitalized with a new approach. Since then, the records of approximately 120 agencies or subordinate units have been intensively reviewed. The experience to date indicates that a target of 2 to 3 percent permanent records is obtainable as the program advances.

69-732—66——4

Federal records centers

The National Archives and Records Service began operating 10 low-cost storage centers within a few months after the enactment of the 1950 records law. When the law was enacted, 308 depositories (104 agency records centers and 204 other accumulations) were being operated at a personal service and space maintenance cost of more than $15 million a year. These numerous agency centers occupied 6,212,000 square feet of space, and engaged 5,904 employees.

Today, 10 centralized regional records centers of NARS are operating for roughly $4 million less than the cost of storing inactive records under the decentralized agency plans. Better space utilization and better techniques for servicing inactive records have resulted in accumulated space and personnel saving of more than $50 million since the law authorized the centralized centers. In the meantime, the volume of records serviced by the general-purpose centers has increased 200 percent.

In addition to the regional centers, NARS operates a special-purpose center in St. Louis for civilian and military personnel records. The transfer of civilian personnel records in 1951 was preceded by a study which showed that the service folders of civilian personnel no longer working for the Government occupied over 485,000 square feet of prime, recoverable space. The folders, occupying 48,000 filing cabinets, were used to answer some 600,000 inquiries a year covering changes in employment and retirement. The maintenance and servicing of these records required 360 employees. The work is now being done by 200 employees, using 200,000 square feet of space, and 20,000 filing cabinets.

These regional centers currently receive about 750,000 cubic feet of noncurrent records a year from Federal agencies and dispose of about 550,000 cubic feet. Thus the centers each year absorb practically the entire increase in the records holdings of the Government. The following table shows the effects of having such centers:

Total Federal records	Square feet used	Office space used	Storage space used
In 1953: 25,000,000	25,000,000	20,000,000	5,000,000
In 1966: 25,000,000	17,000,000	13,000,000	4,000,000

Not only has the amount of office space being used for records declined, but by using center storage methods the square footage of storage space has declined.

The second Hoover Commission indicated that two-thirds of all Federal records could be placed in records center-type space. NARS has been working toward an intermediate 50-percent goal.

Once half of all records are in center-type space, NARS will up its goal to the recommended two-thirds.

The value of the office and storage space and the filing cabinets and other filing equipment emptied for reuse by transfers to the Federal records centers amounts to approximately $5 million a year. In addition, the centers, by storing more economically the records received from agencies in previous years, make it possible for the Government to avoid the expenditure of another $4.6 million a year.

Put another way, and to emphasize the importance of a sound paper-

work savings program, without the records center program, three things would have occurred:

(*a*) Fewer records would have been destroyed or transferred from office to warehouse-type space. This is estimated at 27 million cubic feet, or a cost of over $100 million for the period 1951–66.

(*b*) More office buildings would have been constructed, purchased or leased to provide for the 27 million cubic feet of records. At a 1-to-1 ratio at which these records are generally found in agencies, about 27 million square feet of office space valued at more than $100 million annually would now be added to the Federal Government space cost.

(*c*) More agency records centers would have been established to stem the tide of needs for ever-increasing office space. The number of agency centers and personnel operating them would have been doubled during this period. The annual $15 million agency budget would now be pegged at more than $30 million a year.

Taking these elements into account, the program savings plus the avoidance of expenditures which would have otherwise been incurred may reasonably be estimated at $250 million for the 1951–66 period.

Moratorium on purchase of new filing cabinets

The President's moratorium on the purchase of new filing cabinets, has in the 12 months since it was imposed in January 1965, reduced the Government purchase of new cabinets by 68 percent. Federal purchases during calendar year 1965 totaled 34,467 cabinets, in contrast to 106,678 purchased in calendar year 1964. By purchasing 72,211 fewer cabinets, the Government avoided the expenditure of $3,610,550.

The effectiveness of the moratorium is further demonstrated by the fact that only 5,948 of the 34,467 cabinets purchased from GSA were for urgent needs of agencies subject to the moratorium; the remaining cabinets—83 percent—were almost entirely for military and civilian use overseas. The moratorium has been extended into fiscal year 1967.

In addition, on September 22, 1966, the President issued a strong directive calling for reduction of Federal Government paperwork in general. The President's directive is shown as appendix E, page 69.

CHAPTER V. PAPERWORK TECHNOLOGY

EFFICIENCY THROUGH BETTER FORMS

Almost three-fourths of all Federal records are forms, and half of all Federal reports are forms.

Forms serve management in many ways. They constitute the backbone of most systems. They are often selected as the natural unit of workflow, production scheduling, and cost accounting. They structure most performance reporting.

If there were no such things as forms, all responses to questions asked people and organizations would have to be written out much as a letter is written. In this sense, forms are highly efficient. Yet, their cost is not insignificant. In fiscal year 1966, the Federal Government is believed to have spent over $53 million to print its forms. In addition, tests indicate that 20 times as much is spent on the clerical effort involved in filling them in, forwarding them from office to office for analyses, abstractions, calculations, and finally, for review and filing. Large as this amount is—over $1 billion—it is small compared to the cost of doing business without forms.

There are about 900 full-time forms technicians in the Federal Government. On an average they are responsible for about 4,000 forms each (ranging from several hundred to over 15,000).

Unfortunately not all agencies have good programs. In some cases this is because the personnel in charge have been poorly trained; in others topside support is lacking; while in still others the program is not organizationally well placed.

As long as so much of paperwork costs involve forms, they have the potential to increase or decrease total costs. Costs go up when the forms are inefficient. This happens when they—

Are difficult to fill in;
Duplicate or overlap each other;
Have poorly written prescribing instructions;
Contain unneeded information;
Have more copies than necessary;
Are the wrong tool for the parent procedure;
Fail to follow design standards;
Are uncontrolled in their creation; or
Clog up a supply system because of obsolescence.

Today, with the advent of punched paper tapes, tape-to-card and tape-to-tape converters, storage of data on magnetic tapes and drums, and the use of internally stored programs, the principle of single entry of basic data at the source gives new authority to forms as the input medium. Agencies adopting source data automation no longer require as many forms for a given procedure, but the forms are more complex and can only be designed by someone familiar with the requirements, logic, and limitation of the type of equipment being used.

It takes many forms (estimated to be some 360,000 different ones, utilizing 15 billion copies) to keep the wheels of Government turning.

In Government, as in industry, it is a rare procedure which does not require the use of at least one form. Thus, a question often more pertinent than the merits of the form itself is the necessity for, or the efficiency of, the procedure which requires its use.

Forms management means that the work implications of each form will be weighed before it is printed. The forms analyst is in a position to produce savings through better procedures, secure the benefits inherent in meeting design standards, and improve public relations.

THE DRIVE FOR BETTER LETTERS

The billion letters produced annually in the Federal Government cost approximately $1.5 billion. They vary from an average of 25 cents for a form letter to an average cost of $2.75 for an individually dictated letter. If agencies were to make full and effective use of the mechanical aids and procedures available to deal with correspondence, the public service could make substantial savings. The fact is that, as with the other areas examined in this report, correspondence management will richly reward proper cultivation.

Correspondence is being mechanized, but the rate is not adequate in terms of the total problem. Although most agencies report use of some type of automatic typewriter, none is handling a large part of its correspondence through extensive use of preapproved paragraphs and letters produced on typewriters from punched tape. The form letter and guide-paragraphs permit large volumes of routine and repetitive correspondence to be handled expeditiously, but the savings from the use of such techniques are still not being fully realized.

Over half of all Government letters are individually prepared. If only a small proportion of these were converted to preprinted and stocked form letters, the resultant savings would be impressive. A further important saving could be made by converting other individually prepared letters to preapproved guide letters. Approximately one-quarter of all correspondence produced in the Government is initially hand drafted, the most inefficient and expensive way to produce correspondence. Probably 80 percent of the hand-drafted correspondence could readily be dictated to machines, with consequent significant savings.

Another costly practice is the preparation of letters by subordinates for the signature of a senior official who has not delegated signing authority to appropriate levels. These letters frequently pass up and down several times for rewriting at several levels before final approval, signature, and dispatch.

Full advantage has not been taken of the benefits to be gained from proper utilization of stenographic and transcribing pools. The usual objections, alleging poor service and poor quality, are only valid where the pools are badly administered, where production standards are not set, or where insufficient training is given. Stenographic pools still provide opportunities for progressive training, the application of incentives, the use of work measurement, the introduction of quality control, and for effective work distribution to alleviate problems caused by peak workloads.

The 1955 Hoover Commission task force realized that a correspondence style board, similar to the Government Printing Office Style Board, was definitely needed. Such a board was established, and with

NARS participating, in 1960 brought out the U.S. Government Correspondence Manual. Most agencies have accepted the manual as their own and have merely supplemented it where it needed to fit their own particular needs. There are, however, agencies which still insist on publishing their own style manuals, usually duplicating the standards spelled out in the Government Correspondence Manual.

Realizing that $100 to $200 million could be saved by applying more efficient correspondence methods and techniques, NARS in 1957 created a correspondence management workshop to explain and promote the installation of such techniques. The workshop covers the content and operation of a correspondence management program, the standards and principles of plain letterwriting, and the possibilities of form and guide letters. This workshop reached over 200,000 Federal employees between 1957 and 1963.

In 1965 because of President Johnson's interest in combating Government gobbledygook and creating a better public image of the Government, Mr. John Macy was appointed to head a committee to look into exactly what the agencies were doing to lick this problem. The bureaucratic tone found in some Federal letters was the main target of this campaign. NARS was called on to create a training course aimed at the top echelon of Government. The course, called plain letters for Federal executives, was given under the auspices of the GSA Institute. This particular workshop in 1966 has been given to 1,800 Federal executives, representing 44 agencies.

If correspondence training is to be of lasting benefit to an agency it must reach most of the agency's letterwriters and preferably be given within the agency itself. The Department of Agriculture (Agricultural Stabilization and Conservation Service), has adopted the course. The Department of the Navy, Public Health Service (Division of Nursing) and the Social Security Administration, also have adopted this training. A similar project is now going on in the Veterans' Administration.

The number of letters being received by Federal officials, including Congressmen, is increasing yearly. Some attribute this to greater democratization of the American political process, some to increasing literacy, and still others to the increasing impact of the Federal Government on people's lives. As an example of this great increase, about 140,000 letters, addressed to the President, arrived at the White House each year through the Roosevelt, Truman, and Eisenhower administrations. Then the mail spiraled to an average of 307,312 pieces during the John F. Kennedy years. In 1965, President Johnson had 825,750 letters mailed to him.

GUIDING THE MAN ON THE JOB (DIRECTIVES)

It was estimated, in 1963, that directives cost the Federal Government about $400 million a year, using the $400-per-page formula, because 1 million pages of directives were being produced every year. There are now in existence in directives systems, about 1 page of directives per Federal employee or about 2,660,000 pages. However, there are about 5 million pages of directives that are not part of the formal systems.

In directives systems evaluations made in Government departments and agencies, certain consistent problems prevail. These problems

seem to persist throughout 18 evaluation reports resulting from the National Archives and Records Service authority to evaluate paperwork systems. Directives are not current; not updated; need new indexes or updated indexes; are too voluminous; are written in language too difficult to assimilate; require replanning the basic subject classification and thus require reissuance of the related instructional releases; are republished, expanded, or amplified ad infinitum at various organizational levels; are complicated by supplementation with temporary or overlapping instructions; and are not kept current because of instructions in correspondence not being transposed to directives form. All of these problems are chronic symptoms.

Basic directives system problems

The problems that plague every directives system are not the mechanics of the system, nor misunderstanding of the mechanics by the persons who install or centrally control the system. It is generally the inability to assure compliance with the system throughout the organization because of a lack of: (*a*) a network of control personnel at the operating or generating levels; (*b*) a fully planned table of contents or subject classification; and (*c*) a fully appropriate and viable distribution system.

Agency analysts, in charge of directives control, only call for outside assistance when such a call for help will not reflect on their own competency to develop and operate an efficient system. Yet, these staffs may need more than anything else the operating supervisor's support in correcting deficiencies in the directives system. Therefore, there is the tendency to hold back in correcting underlying problems until the directives system is recognized by line officials as causing them tremendous operating problems. In these cases, a complete overhaul, rewriting all or most releases, plus integrating those in stages of development, demands a great amount of staff time. In light of daily pressures, this time is considered a luxury that is given the lowest priority. Surveys of systems do determine and define the problems and provide recommended solutions. However, unless administrators allow for complete resolution rather than partial remedies, the problems recur and reflect again on the system itself.

Training writers of directives

Almost all professional or technical Government personnel in headquarters offices are initiators or writers of directives. They come into Government service as their specialized skills are needed. Their backgrounds consist of years of growth in their fields, and they are not and cannot all be trained to write or prepare their materials in the regimented form necessary to an effective directives system. Management encourages and allows some personnel to attend directives workshops. This helps to a great degree. However, the workshop attendees are most often those people who are already aware of directives system problems or are not in a position to substantially correct situations at the operating level where the directives are born and where conformity to the system is most essential.

It is literally impossible and impractical to train 200,000 persons headquartered in the Washington area plus those in headquarters offices located throughout the United States because: (1) the majority of administrators and key officials do not consider directives manage-

ment of sufficient stature to visualize the extent to which it saves program operating personnel time and effort for their primary program duties, (2) the secondary and lower level officials reflect the views of their key officials, (3) there would never be enough training officers to reach the number of people actually affected, and (4) the turnover of personnel at the top as well as working levels is so constant that training as well as the education of key officials in its need, is never a one-time accomplishment.

BETTER INFORMATION FOR DECISIONMAKERS (REPORTING)

Reports are becoming in the aggregate the most expensive type of record to create. They convey information and intelligence to officials for management purposes and furnish other branches with transactional information to carry out their work. The objectives of report control are elimination of reports or data not required; consolidation and simplification of reports; the use of economical methods of preparation; and the determination of data requirements. The last named leads into management information: which aims at getting the feedback to management's set of quantitative goals. This often requires planning officers or appraisal officers who are heavily involved in finding out what the manager needs.

Reporting is an area of paperwork in which the Government presently invests approximately $1 billion a year. This cost breaks down to $550 million annually for routine management reporting and $250 million on special reports. Adding the cost to prepare and collect information for the public, one gets a total of $1.3 billion. This compares with the Hoover Commission figure of $700 million for 1955. There are approximately 125,000 recurring reports prepared internally, compared to the 1955 figure of 100,000.

Because reports are so closely interwoven with organizational objectives, they are dynamic and ever changing. The reports control approach of the 1950's has made significant contributions, but is gradually changing to emphasize the need for the right information. Now automation combines with transactional and operational information to add a new dimension to data processing. All three, each with its special contribution, form the total management information complex. The component parts may be said to be the following:

1. *Developing economical and effective preparation.*—Determining cost and man-hours in preparing reports; reduction of costly executive preparation time through delegation; insuring timely, clear, concise reports; and determining economical, effective presentation such as written, pictorial, or oral.

2. *Evaluating requests for reports.*—Determining the degree of justification in terms of information contribution versus cost.

3. *Periodic auditing of reports.*—Reviewing reports inventory to insure timely action in eliminating, up-dating and combining. Reviewing objectives, functions, procedures, staff, and equipment used.

4. *Reducing number and costs of reports.*—Simplifying reporting procedure, eliminating routine information in favor of "exceptions," and reducing the amount of higher paid executive time in report reviewing.

5. *Eliminating nonessential and unauthorized reports.*—Discovering and discontinuing "bootleg" reports and unauthorized reproduction and duplication.

6. *Improving quality of reports.*—Establishing standards of reporting format, brevity, clarity, and accuracy.

7. *Identification and coding.*—Properly assigning titles and control numbers to aid in detecting unauthorized reports, duplication, and overlapping functions.

8. *Determining individual and total report costs.*—Obtaining and analyzing data for costs of gathering report information, report preparation, distribution and retention. Comparing cost of report, value of information, and contribution to total system.

ROOT OF THE RECORDS PROBLEM: SOURCE DATA

Early in 1956 the Navy Department began a drive to speed up its paperwork processing with a new technique. Simply stated, this was a technique for capturing the information needed throughout a paperwork system in a machinable language—paper tape, punched cards, etc.—so that machines, not people, could perform the necessary processing steps.

Following a 3-year period of fostering the use of "source data automation," as it became known, the Department found it had developed an impressive list of improved systems. These systems caught the attention of the Bureau of the Budget, which determined that a Government-wide promotion of these techniques might produce similar results. The Bureau, in 1960, assigned this mission to the National Archives and Records Service.

Source data automation

"SDA" has become a modern management approach to the task of making paperwork less burdensome and more fruitful. It is designed to bring economy, accuracy, and speed to repetitive paperwork operations, particularly those of large volume. Source data automation starts with automation at the source of the data, where the work begins; it provides the vehicle for a self-perpetuating data system; it facilitates the transmission and storage of data so that information may be used over and over again, recaptured in the many forms that management and operations may require.

NARS and source data automation (SDA)

In February 1961, the first SDA workshop was conducted for the Regional Directors of the National Archives and Records Service with the instruction that they conduct it for any willing agency. Within 1 year, the results obtained were showing a proportion of man-hours saved against man-hours expended of 68 to 1. The man-hours saved are from improvement projects developed by the participants attending the workshop.

The participants "price of admission" is that he will undertake an improvement project when he returns to his agency. It is this latter innovation which has produced savings of $10,237,000 from 389 improvement projects developed by participants attending the 112 workshops during the past 5 years.

The source data automation workshop has been attended by an estimated 10,000 administrators, supervisors, and analysts.

An agency with an imposing record of SDA applications is the Department of Agriculture with 96 systems implemented at an estimated annual savings of over $2 million. The Navy saved $5

69-732—66——5

million in jet fuel procurement by using SDA techniques in just one procurement procedure. The Army decided to test the effectiveness of an SDA workshop approach and found that 56 attendees proposed 51 improved systems. Maj. Gen. J. E. Landrum commented, "full implementation of an SDA program in the Army could eliminate 20,000 positions."

Yet to be done

With repeated exposure to the principles of SDA, NARS workshop specialists learned that an SDA approach to systems improvement often went beyond the immediate source. On many occasions, improved systems, developed by workshop participants, lead directly to the machine room. About this same time, the machine room specialists realized that the cost of making the data machine ready often exceeded the cost of electronically processing it. It is these two factors which are now leading to a much more fruitful area of improvement projects.

Various sources have developed figures on the overall costs of operating automatic data processing equipment in the Federal Government. These figures range from $1½ to $3 billion. However, all sources agree that input—making the data ready—represents at least $550 million. A strong SDA program can substantially reduce these costs and in addition produce many byproduct benefits; greater accuracy, faster service, better information for management, to name but a few.

The materials and equipment needed to conduct SDA workshops have been available to the agencies since August 1962. Each agency should undertake the following course of action:

1. Establish a small organizational entity to automate source data.
2. Assign, to this organization, no less than two persons with management analysis or systems analysis experience.
3. Detail these persons for a 2-month period to one of NARS regional offices for the purpose of attending and assisting in conducting SDA workshops, learning the principles of SDA techniques, and participating in SDA systems studies.

SPEEDING MAIL TO ACTION DESKS

The Federal Government is one of the largest growing users of its own postal system—mailing about 2 billion pieces of first-class surface mail each year. The figure is up a half billion since 1955. The individual agencies now reimburse the Post Office about $128.9 million (up from $38 million in 1955). The volume of mail handled by mailrooms of Government agencies requires 38,551 mail and file personnel and 4,951 messengers—at a cost of $200 million. To the two current costs, just mentioned, must be added a still larger third one—the cost of controlling mail in operating offices and the reviews and concurrences outgoing mail gets in the signing process.

The benefits to be obtained from mail management are being better understood in the Government. It is the general practice that mail from the public is answered promptly. Although one still hears of persons waiting weeks for a reply from the Federal Government, such cases are few out of the 1 billion letters written each year.

Agencies are securing their mail improvements largely through following published standards. This can be readily seen when it is understood that most improvements have been obtained by:

(*a*) Putting procedures in writing.

(*b*) Developing routing guides and routing direct to action office.

(*c*) Reducing and simplifying controls.

(*d*) Assigning messenger activities to a single office and tailoring messenger routes and schedules to agency needs and post office schedules.

(*e*) Reducing the number of mailrooms and mail stations.

(*f*) Limiting clearances, reviews, and rewrites.

(*g*) Using laborsaving devices.

(*h*) Selecting the right postal service.

The last-mentioned item bears some elaboration. It refers to using first-class mail instead of airmail, using third-class mail instead of first-class mail, and fourth-class mail instead of first-class mail. Many Federal offices seem to want everything (including bulky publications and blank forms) to go first class.

PROTECTING VITAL RECORDS

This program has been based on certain ground rules that have been generally accepted as valid. These basic assumptions, which are applicable to State and local governments as well as to the Federal agencies, are seven:

1. That in the event of war the city of Washington will be a prime target.

2. That other large metropolitan and industrial centers will be equally prime targets.

3. That the entire concept of "protection" must be based on relative rather than on absolute safety, since probably no vault that is near or above the surface of the gound could withstand a direct hit by the most destructive bombs. Adequate underground storage facilities are not available in many areas.

4. That the need for duplication of records will vary according to the value of the record, the normal distributon of copies, and the relative safety of the places to which the copies are distributed.

5. That evacuation to a nontarget area is the most practical means of providing protection, with the realization at the same time that the hitherto nontarget area may become a target area as soon as the valuable material is moved into it.

6. That a calculated risk must be taken with regard to certain records of lesser value than those identified as vital records.

7. That each agency affected is responsible for planning and putting into effect action necessary to protect its records.

This program has been in effect since 1952. Yet, what appears on paper to be the best possible program for the protection of vital records will represent a complete waste of time and effort if it is not kept up to date.

To insure that the program is adequate it must be simple and economical, and it must be tested periodically in one way or another.

In determining what are vital records, there are two conflicting tendencies to be reconciled:

1. The tendency of most officials to overemphasize the value of the tasks they are performing and consequently to earmark too many records as vital records, and

2. The tendency of officials to forget that when someone else must perform their vital functions, that other person will not have the benefit of all the information in their own minds.

The records must be complete enough to enable a person relatively strange to the job to carry it out, and they must be few enough to make a continuing program practical.

Federal agencies have found that, as in the case of private companies, the percentage of all their records that deserve designation as vital records will vary with the functions they are to perform, but that in any event the percentage will be relatively small. One Government agency with extensive mobilization responsibilities, which presumably in a time of emergency would expand very rapidly and perhaps would be divided into several independent agencies, presently has in storage a volume of records equal to 2 percent of its total holdings. Another agency, which would continue in an emergency to carry on most of its present functions, has provided for safeguarding 1 percent of its current holdings. These agencies have taken care to avoid developing overly elaborate programs to safeguard everything, and they should be able to continue their programs indefinitely without running into budget or procedural difficulties.

In order to be sure that the vital records program is kept current the Office of Emergency Planning has instituted a reporting system by Federal agencies to the National Archives and Records Service that is intended to serve several purposes. Among them, NARS is to remind agencies constantly that they should review the progress of their programs.

The reporting system provides NARS full information on the status of the program, the persons responsible for specific activities, and the nature and whereabouts of the key records. The program is working well enough that no recommendations seem to be needed at this time.

INFORMATION RETRIEVAL

Viewing the problem

The period since World War II has witnessed an "information explosion." Much of the writing coming out of this explosion has not been books, but has been articles in journals, monographs, special reports, speeches at symposiums and colloquiums, and the processed proceedings of highly technical conferences.

Libraries with their classification methodology were not very well prepared to cope with such an outpouring of information, often in a very limited number of copies. This gave rise to a new breed of "special libraries," "document centers," "information centers," "technical files," and the like, using a new kind of indexing controls—usually called "coordinate indexing" and controlled by "thesauri."

The Government has entered this picture in a number of ways—it supports financially a great deal of the technological and scientific research that produces the literature; it is concerned with coordinating the hundreds of locations where specialized pieces of the total literature are being maintained. The most recent large study in this connection

was the "Recommendations for National Document Handling Systems in Science and Technology," Committee on Scientific and Technical Information, Federal Council for Science and Technology, prepared by the Systems Development Corporation in November 1965. Early in the report this statement occurs:

> This report is confined to the scientific and technical information and documentation system. In some ways the limitation is unfortunate since there is so much other information and so many other documents which form a traditional part of the communication and documentation world. The report does not deal with material in the humanities, the law, the arts, or commerce. Traditionally, the formal knowledge system, a part of which involves publishers and libraries, has not separated one branch of knowledge from the others as deserving special and preferential treatment. However, in recent years the Federal Government has recognized the great importance of science and technology to the general welfare and has given this area unusual and generous support. Scientific and technical information and documentation has played a part in this new emphasis, and because of its central position in transmitting knowledge it has been singled out for special attention. While this is only natural, it is to be hoped that appropriate attention will also be given to the documentation and library problems in other fields of knowledge and endeavor.[1]

The footnote is notable. It excludes material usually found in office files rather than in libraries. Actually, many areas of the office are experiencing the same serious gap in the storage and retrieval of information and data as the scientific information centers. While the automated library-type systems and techniques developed for the scientific and technical communities offer fertile ideas for solving the information storage and retrieval in these other areas, they cannot, unfortunately, be applied wholesale to office records. Officials concerned with Government paperwork are awakening to the possibilities that these new systems and techniques offer involving their information problems, but they have not yet acquired sufficient knowledge and experience in the art to apply them profitably. Literature on the subject of information retrieval, while voluminous, is concerned with technical libraries and is not readily understood by managers and systems personnel. The dilemma, then, is that many offices are not taking advantage of these techniques to increase efficiency, while others are going ahead with ill-advised and thus unprofitable applications.

Relation to automation

Another reason paperwork managers should be concerned with application of information retrieval techniques is that it should be considered as a necessary corollary to automatic data processing. In many offices today where there are highly sophisticated, efficient systems for the automatic processing of accounting and similar data, the

[1] It should also be mentioned that this study is concerned largely with journals, monographs, reports, proceedings, books, etc. Another important part of the formal document system is not included, namely that part dealing with such material as: engineering drawings, specifications, manuals, industrial catalogs, maps, and photographs.

larger bulk of detailed information and data which must be retained for long periods is still being stored and retrieved in much the same way that it was 50 years ago. In the personnel field, computers are being used to maintain payroll and fiscal records, and execute various accounting transactions, yet most such offices keep all other data regarding their employees in personnel case folders. Consequently, a rather strange paradox exists in many offices today. For example, the same agency that can complete payroll statistics in a matter of seconds may require days or weeks to identify those employees who should be considered in filling a vacancy. This is because the office can utilize the computer for the first type of data, but must manually screen individual folders, or resort to other methods, for obtaining the second type. The result, then, is that it is often not only far more expensive to retrieve the data, but the office cannot take advantage of the computer capability to correlate and manipulate data as demanded by a particular situation, or to routinely produce statistics and other management information.

In every agency there are employees whose principal work is retrieval of information to satisfy various operational and management needs. Most of this work is being done by conventional methods, and indeed, there are many times when it should be. However, most managers today are not sufficiently knowledgeable in the field of information retrieval to know when these operations should be automated and when they should not. Many managers, to be sure, are not fully aware of the fact that in their legal offices as much as 75 percent of the attorney man-hours are being spent in searching through bulky volumes of laws, legal opinions, and court cases. Nor, are the managers or the attorneys themselves yet able to determine to what extent automated information retrieval techniques might be applied to reduce costs and assure consistency in such activities as adjudicating claims, preparing briefs, and rendering administrative opinions and decisions.

Automated information retrieval systems are divided into two types of systems based on the form of the information stored. One category stores large volumes of simple data or information bits, and through high-speed random access devices processes the data into meaningful information. The other type stores duplicates of original source data in the form of microfilm, video tape or a similar medium and relies on mechanical, photoelectric, and in some cases, EDP systems for retrieval.

A. Computer retrieval.—The most efficient use of the computer is made by taking full advantage of the machine's capacity to perform high-speed manipulations. When data can be stored or input as units of information, particularly as original source data rather than from documents, the system can rapidly search for, retrieve, and perform operations with data, and produce the results in several media forms. Both input and output can be in the form of punched cards, punched tape or magnetic tape and, additionally, output may be presented as typed paper or by cathode ray tube from which microfilm prints can be simply made. Permanent records or memory units can be provided for the computer by disc or drum storage files.

Since much of the information desired by management is in the form of correspondence and original source documents, the use of a costly computer installation to merely produce retypings from its

memory would be extremely costly and wasteful. The process would involve converting paperwork to an input medium for future reconversion back to paper. Microfilm can provide a compromise to make computer record retrieval more efficient through the medium of aperture cards. These cards are regular punched cards which contain a small square of film upon which numerous pages are photographed. The computer can then locate and deliver the desired material rapidly using the normal indexing method of through cross-indexing to fit a variety of situations.

B. Photomemory systems.—Photomemory units are basically centralized storage devices for microfilm records. The microfilm records may be in reel form or separated into tiny cards called "chips" and are enclosed in some form of storage cannister or cartridge which form a part of the indexing system. Normally a small section of the film is devoted to magnetic spots or some other coded form to indicate indexing, cross-indexing, or subjects, which are scanned by the photomemory unit in the retrieval process. By manipulating a series of keys in sequence with the desired search pattern the microfilm is delivered rapidly (10 to 25 frames per second) past the photocell selector which scans the machine readable code and presents the desired document(s) to the operator on a viewer, or rapidly prepares a paper copy before refilling the film unit. With some equipment it is possible to employ photoposting techniques to add information to the miniature microfilm documents.

C. Separated search system and records storage.—Other systems that do not combine storage and retrieval systems have been developed to assist in finding records pertaining to a specific subject from among large, complex filing systems. An example of one such system employs cards pertaining to key terms and individual documents in the files. Search is made for a combination of terms by mechanically superimposing cards over a light source and observing the coded holes through which the light appears as dots. The position of the light dots may indicate the file serial number where the desired document will be found or pinpoint exact physical location if cards containing a print of the document storage area are used.

FILING: EVERYBODY IS IN THE ACT

Management of files is one of the most underevaluated and misunderstood segments in the management area. Over 255,000 Federal employees spend a majority of their time filing documents. An effective files management program in the Government includes the following:

1. Acceptance of standards for classifying and indexing records, and for the promulgation of a filing manual.
2. Placement of files in convenient locations, considering factors of proximity and administrative necessity, in order to avoid duplicate files.
3. Review of requisitions for filing equipment to control purchases, to allow for interchange of surplus equipment, and to provide guidance as to the most suitable equipment available.
4. A training program in all phases of files management, regularly updated to reflect new developments in recordkeeping practices, equipment, and supplies.

Earlier in this report the committee already commented at some length on the growing number of file stations in the Government and the effect of volume on the filing classification systems.

The designation of official file stations prevents mushrooming of files in other locations; helps prevent unnecessary duplication; ends confusion as to whereabouts of documents; contributes to completeness of files; and aids disposition of records. The chief difficulty of the Federal Government in the recordkeeping area is somehow connected with the overproduction of files. The division has a file; then the section has to have a copy too; it can't use the division's copy. The unit has a file; it can't use the section copy; then there is the fourth copy going to another office. All four of these offices may be in the same corridor; they may be on the same floor; they may even be adjacent to one another, but they can't use the copy in the next office. They can only use a copy of their own. The making of four copies isn't really the costly thing. It's in the keeping of them that the cost mounts.

It's this kind of situation which causes the Government to create about 4.6 million cubic feet of records a year.

MANAGING RECORDS DISPOSITION

Management of records disposition includes:

Eliminating records no longer needed;
Preserving records of value;
Predetermining their retention; and
Freeing valuable space and equipment.

In the Federal Government records are destroyed in accordance with "records control schedules" prepared by the agencies, appraised by the National Archives and Records Service, and approved by the Congress. Every agency is expected to have every type of record it creates covered by a "records control schedule." Each type is expected to be kept for the shortest feasible time.

Nearly all Federal records are scheduled. Too many are kept too long, but the agency records managers keep working at this problem.

Most agencies run a volume count on their records annually and thus have facts as to whether they are able to destroy as many records each year as they create. This is the goal of most agency records managers.

Most agencies try to transfer between 10 and 15 percent of their records, each year, to Federal records centers or agency storage.

Most agencies realize records tie up prime space and equipment unless an adequate records disposition program is in effect. The space and equipment freed each year through disposal has a value running into the millions of dollars.

WORKSHOPS: THE EDUCATIONAL APPROACH THAT ALSO PRODUCES ACTION

NARS workshops have been mentioned in this part of the report. Since they are worth separate examination, a recap of the workshops available to agency use might be useful:

Files improvement, 2 days; records disposition, 1 day; forms improvement, 3 days; speeding correspondence 1 day; records man-

agement, 10 days; source data automation, 5 days; directive management, 2 days; correspondence management, 3 days; modernizing reports, 4 days; information retrieval, 4 days.

These workshops, though designed to be educational—explain the Federal-wide standards—have never stopped there. They are meant to result in agency improvements as well as increasing an individual's knowledge of doing a job. They do these by blanket coverage of all the personnel of the organization that might benefit from the training. The attendees then, after returning to their work, undertake an improvement project. This means that a sizable organization may have a hundred or more individual projects underway after a series of workshop presentations.

The attendee must not only undertake a project; he must report the project's accomplishments on a simple reporting form. The forms, when collected, make the tallying of results possible.

Results have universally been good, although agencies have not availed themselves of the workshops on the scale they should. Workshop benefits are both intangible and tangible, as might be expected. Computable results, in the form of savings, run into the millions of dollars. Note these examples.

Records disposition workshop, 1959 through 1965 (rounded to nearest thousand) has helped agencies destroy 96,000 cubic feet of records; has been instrumental in releasing 24,000 filing cabinets; has caused 68,000 cubic feet of records not previously scheduled to be scheduled; has resulted in 57,000 cubic feet of records being transferred to Federal records centers.

Forms improvement workshop, 1958 through 1965 (rounded to nearest hundred) has eliminated 2,600 forms, man-hour and printing savings unknown; has produced 6,100 revised forms with benefits totaling 492,000 man-hours and $26,000 less printing costs; has developed 400 new forms with benefits estimated at 172,000 man-hours.

Source data automation workshop, 1961 through 1965 (rounded to nearest thousand) has initiated the installation of over 275 new automated paperwork systems, with benefits in excess of $10 million.

This report cannot give all the results in detail, yet when put in the aggregates, some of the significance gets lost. Therefore, listed in appendix B are the benefits from the correspondence management workshop for the period 1958–61. The list is still typical rather than exhaustive. The list indicates:

(*a*) Reduced verbiage from 10 to 50 percent;

(*b*) Eliminated almost one-half a million individual letters a year;

(*c*) Reduced copies by almost 1 million sheets a year; and

(*d*) Substantially reduced preparation, review, and clearance effort.

CHAPTER VI. HOW FEDERAL AGENCIES CAN ORGANIZE FOR PAPERWORK MANAGEMENT

AGENCY RESPONSIBILITY UNDER THE FEDERAL RECORDS ACT

Every agency recognizes, in some fashion, the existence of the Federal Records Act of 1950. In the large agencies there is usually a small records management or "paperwork management" group at the highest level which promotes good practices and coordinates the work of the second levels, generally called bureaus, services, commands, or departments. There is then a similar office at the second level, which attempts to make its influence felt there. Frequently, at the field level, there will be a counterpart group in the large offices, particularly those which have command or coordinating roles, as regional offices.

Whatever the Federal Records Act of 1950 may have helped accomplish, it did not provide a generally acceptable concept of what paperwork management work is, nor where it might be most usefully located in the organization.

FURTHER DEFINITION OF PAPERWORK MANAGEMENT

By the time the concept of paperwork management came on the scene in the mid-1940's two other groups with paperwork management overtones were already on the scene. They were the accounting systems analysts and the organization and methods examiners. Generally they closed ranks against the newcomers. The accounting systems analysts maintained that financial recordkeeping was "off limits" to paperwork managers, and the organization and methods examiners initially felt that forms, reports, and directives were "off limits" to them.

At least two things happened in the late 1950's which somewhat changed this—the introduction of electronic data processing and the rise of the concept of "management analyst."

The concept of the management analyst is the systems innovator, the consultant, the generalist who makes thorough studies and recommendations. He is not the person who operates a management system. Most organization and methods examiners of the 1950's operated management systems—such as forms, reports, and directives. In U.S. Civil Service Commission position standards the persons who hold these positions are termed "management technicians" to distinguish them from the "management analysts."

In a study made in 1957 by Dr. Irene Place, educator and author, it was found that organized systems groups tended to fit into one of four general areas.

1. The group associated with office services. This group emphasized the functions of clerical work measurement, office layout and space management, forms control, files management, and records

retention programs. This group tends to be management technicians, using Civil Service Commission terminology.

2. The group reporting to a controller and staffed mostly by personnel from the accounting department. These persons tend to see the job of systems analysis as primarily one of manuals and standard practices, accounting and cost control. These tend to be called accounting systems analysts.

3. The group reporting directly to assistant secretary, or administrator, and who see the job of the systems analyst as a management planning, top-level policy and procedure review activity. They emphasize organization studies, systems design, management research and communications. This group tends to be called management analysts by the Civil Service Commission.

4. The group concerned primarily with electronic data processing equipment applications, and operations. This group is generally composed of digital computer systems analysts.

The concept of management technician has never been accepted by a majority of the paperwork specialists. The U.S. Civil Service Commission should consider this matter further, and should discard the concept if it is a barrier to getting the paperwork improvement job of the Government done well.

LOCATION OF PAPERWORK IN AGENCY OPERATIONS

So long as agencies do not agree on their definition of what paperwork or records management work is, they could never be expected to agree on where to place the total or the various specialized components. Still, two patterns have gradually been emerging.

The systems pattern

Many agencies place their management analysts and their management technicians in some element devoted to systems development and systems review. This would include the paperwork specialties.

The service pattern

Many other agencies tend to have a systems element that excludes the paperwork specialties. These specialties are then placed in management support, administrative services, and office methods.

The systems pattern roughly corresponds to group 2 in Dr. Place's categories. The service pattern roughly corresponds to her group 1.[1]

BARRIERS TO BETTER PAPERWORK MANAGEMENT ACCOMPLISHMENTS

There are at least five barriers that should be enumerated in view of the number of times they occur.

Lack of various program elements

Although all agencies claim to have a records program, based on the statutory requirements of the Federal Records Act of 1950, actually, there are usually a number of voids. These voids are surprising because they disregard official regulations and represent paperwork problems for which concrete solutions are available. For example, many agencies will have postage bills of at least $500,000, but will have no one assigned to the duty of reviewing mail management to keep these costs down. Another example is frequently found in the

[1] See p. 32.

forms area. Forms cost many agencies, if effort required to complete them is included, in excess of $300,000. But again there may not be anyone specifically assigned to combat the expenditure. In these days when so many people are acquainted with the fact of the $2 letter, outgoing correspondence representing such letters exceeds in many agencies a figure of a quarter of a million dollars. However, persons qualified to attack this cost are seldom found in agencies. In comparison, most agencies have learned that it costs money to keep old files and have designated qualified records disposal specialists to check this expense.

Paperwork costs are not irreducible; they can be substantially reduced. This understanding is the beginning of paperwork improvement.

Lack of management support

Because paperwork improvement is time consuming and to many managers lacks glamor, management seldom gives this type of program adequate support. Yet paperwork is so clearly related to management policy, that without such support, most improvements are abortive.

A qualitative analysis of paperwork involves such questions as, "Why are we doing this?" "Is management getting needed information?" "Is it timely and in the best possible form?" Management will soon discover that paperwork is after all the natural outcome of policy. It is not so much a matter of how much paper, but what is on it, and why if at all, it is needed.

When the talk of the need for paperwork is questioned, management will find that objectives can be realized through less, not more, paper. Before a paper is eliminated, however, the concept of the procedure responsible for its creation must be examined. Management must first be conscious of the reasons for paperwork, and then, and only then, can improvement begin.

At present most attacks on paperwork are on individual weaknesses. The total maladjustment is neglected. This situation is hazardous, for without proper procedure and organization for flow of information, based on a qualitative analysis of the problem, all of these attacks will break down.

Lack of agency standards

There is more need for agencywide standards, geared to specific needs, than for Federal-wide standards, issued by GSA.

A few standards on such items as the cost of letters, the cost of keeping files and the cost of certain routine, repetitive activities have been widely accepted. The first impression is that all activities in an office can thus be measured against general standards.

This opinion, though widely held, is in error. Standards for paperwork to be effective must be developed in terms of specific operations. For example, the approval function in regard to passports was found to require several standards: one for typical, uncomplicated cases, one for technical cases requiring adjustment to the record, and a third one for cases in which complicated and legal questions arose. Part of the success of the Passport Office is traceable to the fact that standards have been established in terms of the procedure itself and are therefore effective.

Very rarely have GSA analysts found effective standards of quality and production in existence in Federal agencies. This is not a Gov-

ernment problem only. Standards in the highly professional sense discussed here are rarely found in commercial offices as well. Large steamship firms are notably deficient in this regard although they are making rapid progress.

Lack of integrated approach

Typically, management is unaware of the interrelationships among all the elements of an agency. Management thinks usually in terms of broad program objective, and tends to find paperwork solutions through methods which are piecemeal, opportunistic, firefighting, or have other such limited characteristics. If paperwork is to be approached on an integrated basis, it must be seen as a system.

Paperwork clusters into systems. For example, there are purchasing systems, transportation systems, justification systems, accounting systems, reporting systems, and many others. While these systems are interrelated they must also be considered as entities. Some of the confusion as to the meaning of paperwork improvement comes from a failure on the part of management to have a systems approach.

In studying a system it is necessary to assemble, for purposes of analysis, the entire jigsaw puzzle including every type of letter, every form, every report, all the directives, all the files, all the scheduling techniques, etc. It is then possible to flow chart a system, discover its redundancies, inadequacies, and its technical failure.

Certainly automation should never be applied until a professional study of the various systems and their various relationships have been made.

Lack of proper organization structure

Few agencies have an adequate structure to solve paperwork problems. Usually the elements needed to do an adequate job are lacking or so thoroughly separated that they cannot function as a unit. For example, files and mail and forms are frequently with the administrative services operation, while procedural analysis is inadequately represented in a staff office.

Paperwork systems are in fact total data and processing systems and cannot be efficiently separated from the standpoint of management analysis. All the parts go together to form what might be called an inventory of information as well as the processes by which this information is applied. No matter how paperwork is viewed, whether from the standpoints of mail, files, forms, directives, processing, reporting, correspondence or any other standpoint, there is in fact a unity. Classification and handling in one area affects all others. Procedures in one affects the others. Error or delay in any one is frequently disastrous to the others.

The advantages of giving the paperwork improvement element a common boss are very real. So many forms are reports; so many feeder reports are forms; so many procedures require a directive, forms, and reports; any work in the correspondence field gets into mail; any work in mail gets into forms and form letters; and so on. The real relatedness, however, is their common procedural base. Only procedures give paperwork its rationale and only changes in procedures makes possible paperwork cost reductions.

CHAPTER VII. THE FUTURE

A CHANGING WORLD

From the experience of NARS and others engaged in the paperwork program, it is possible to make the following general observations about the immediate future:

1. The average work of the average office is capable of being automated—and will be so within a relatively short time.
2. Automation continues to be generally poorly applied from the standpoint of general systems. It often simply automates an existing procedure without first eliminating any useless paperwork.
3. Too much emphasis is still being given to procuring large computers, and not enough is being given to time sharing, and use of less expensive, electromechanical equipment in the thoroughly integrated systems such as source data automation provides.
4. Too many make-ready systems studies are still being done by hardware manufacturers or hardware oriented personnel, and not enough by records analysts who are soundly trained in management data requirement, both as to input and output.

Developments now on the drawing board hold considerable promise for time and cost reduction. The optical scanner will work wonders in source data automation. Other machines in research may operate directly from the spoken word. Standardization of data elements and codes will produce greater management information. The committee has had repeatedly demonstrated to it how much the entire economy relies on quantifiable data of all kinds. Everyone wants more of such data, broken down finer and finer. For this data to be manipulated and exploited by management in the most meaningful fashion, it must be constantly updated, combined with other data, and processed more speedily.

Over half of the technical assistance requested from NARS by Federal agencies is to help them construct more valid and useful management information systems. This will continue to be, for many years to come, and open-ended field where all agencies have much to learn and a great deal of experimentation is going on, particularly in applying the newer automated processing equipments to management information systems.

COMPUTERS

The computer and the related peripheral equipment involved in automation are changing the whole face of paperwork. The change is gathering momentum and no one sees any slowdown in the pace in the near future.

Because computers are so costly and their use must not be abused or underused, both Government and industry have realized that before computer hardware is selected—if any—extensive planning by qualified systems analysts, both generalists and specialists, is needed

if the full potential of automation is to be realized. Every agency ought to make it quite clear that:

First. No system, function, or process in the agency will be considered for automation on a computer unless it has been established or reestablished as being essential.

Second. That any system, or major subsystem, or combinations of systems being considered for automation on computers will be subjected to critical analysis in depth and then be engineered in a fashion that insures optimum efficiency and operational effectiveness.

Then third, and not before, consideration of the selection of specific hardware becomes timely.

Top management can understand without difficulty the challenges of input and output. The challenges of output are (1) whether management is really getting a record it can use and (2) whether the record could not have been obtained as inexpensively by manual or mechanical means. Answers to questions of these kinds can best be found by feasibility studies.

The challenges of input are (1) whether the record is being put in machine language at the earliest possible point in time, and (2) whether the input record is being closely enough correlated to the output record.

It is desirable therefore for each agency head to be promoting the following approach:

1. Achieve active participation of top management in determining information output requirements.
2. Enforce the use of common machine languages for input.
3. Require the recording at source only once and therefrom to arrange and aggregate information to meet management needs.
4. Overcome the systems input development constraints that have been imposed by organizational barriers.
5. Establish several central systems of related output data to be interconnected by communication links.
6. Establish a retrieval output system that can call forth data from any or all data systems in a timely fashion.
7. Capitalize on simulation techniques and mathematical models for tradeoff studies of alternative output solutions.
8. Impose cost effectiveness considerations on systems input development.

Agencies need to move away somewhat from the preoccupation with hardware savings toward a realistic assessment of "who needs to know what," and, therefore, agencies should make data processing equipment subservient to their systems design efforts which are focused on the true needs of management for information.

To summarize that approach, within the past year, a few agencies have formalized a systems development discipline that provides for review at the Secretarial level at several key points during the development process. As an initial part of this systems development discipline, each major component of the agency is required to make an annual submission of information systems plans for a 5-year period so that these can be examined for compatibility and altered to eliminate duplication. This and subsequent reviews assure that all major data systems interface efficiently with others in being or in process of development, and also prevent the proliferation of single-purpose information systems. This discipline guarantees that resources are

applied only after Secretarial approval of each phase of systems development. Each major system must survive several reviews at the Secretarial level prior to preparation of data systems specifications. These in turn must be approved before release to equipment manufacturers. The major benefit expected to accrue from the thorough review of systems during their formative stage is the generation of more precise data systems specifications which form the basis of vendors' proposals. This will contribute to a better understanding of requirements by vendors and will permit a more objective evaluation of equipment proposals by the agency.

Now that a few other agencies are in the midst of the second stage of data systems development, the need for active involvement of top management officials has been clearly recognized by the agency head and his principal assistants. They have already progressed from the solution of routine clerical tasks to actual decisionmaking in such areas as inventory management, production scheduling, and source selection in the case of small dollar procurements. They now have the opportunity to devise systems that will trigger corrective actions before historical data would indicate the need for such actions. It is in this area that top management must play an active part in specifying the scope of information needs, in determining acceptable variance parameters, and in interpreting the economic worth of information that can be made available.

One way to view the potential of paperwork management is to look at the Bureau of the Budget Inventory of Automatic Data Processing Equipment. Machine operations now cost $550 million per year, and are increasing at least $30 million a year. The National Archives and Records Service believes that, at present, input costs (the paperwork necessary to get data into machine language for storing and processing) equals machine operating costs; $550 million thus represents the present cost of "input" to "feed" the machines, with the expectation that it too will increase about $30 million a year.

Another way to view this problem is in terms of actual paper. Agencies find that they spend $2 and $3 per page of average material to prepare it for the machine (code, punch, verify, control, etc.). At that rate $550 million would pay for automating less than 100,000 cubic feet (220 million pages) of the over 10 billion pages now being produced annually.

Of the ways devised to decrease input costs, several have potential for the future:

1. Greater use of character recognition scanners.
2. Direct feed-in from typewriters.
3. Greater emphasis upon byproduct tapes.

Clearly, the continued emergence of computers will affect the handling of management information. What for years we have called "report management" or "report control" is growing into a more positive activity called data communications which permits computer-to-computer networks, and therefore gives data systems a potential we can only partially envision.

RESEARCH: KEY TO THE FUTURE

The latest figures compiled by the National Science Foundation show that $23.3 billion per year is being spent for research by the Federal Government, private industry, and the endowed foundations.

Out of this amount only about $100 million is in the general area of paperwork management. Nearly all of this is in the area of data processing and digital computers, much of it by the companies which manufacture and sell the equipment involved.

Yet about 10 million persons of the 70 million now employed, perform clerical work in offices. Office workers are the fourth largest occupational group in the United States. This has led organizations, like the Administrative Management Society, to say $100 million to improve paperwork operations is too small a portion of the national research budget.

The great advantage of funds well spent in the paperwork management area is that the results would have even greater utility to private enterprise than to the Government because there are many more officeworkers in private business.

A number of estimates have been made as to how much money is being spent on paperwork management research by the Federal Government. They range from $3 to $5 million. The difficulty here is that the amount is far too small, and the persons making the decisions as to what projects to undertake do not reflect necessarily a consensus of the Federal Government as to the research most needed. If a more adequate screening process were in effect the Congress would have greater assurance that the funds are being most wisely spent. The committee views the possibility of a Federal center for research in paperwork as the answer.

A Federal center for research in paperwork would maintain an overview of all paperwork research in the Federal Government; pure research and applied research. In the area of pure research, the Federal center might consider projects falling in the following categories.

Classification and indexing procedures

One series of studies might be examining the derivation of automatic and semiautomatic procedures for indexing, classifying, and abstracting documents. Initial results have shown that mathematically derived classification systems are useful in structuring large information repositories. Researchers are now analyzing new sets of documents to determine the realiability and consistency of factors previously derived and reported. Machine—i.e., automatic—classification of documents into derived categories is being compared with human classification.

As part of this series, work is already underway studying the feasibility of representing the contents of files and libraries in association maps and hierarchial maps. These representations, generated automatically on the basis of computer analysis of word associations in text, appear to have considerable promise as aids in information retrieval.

Linguistics and communication analysis

A second series of projects might deal with linguistics and communication analysis. A much-used device in natural language discourse is the abbreviation of a long phrase in a given text sentence by a single word or short phrase in a later sentence of the text. This practice, while necessary for compact writing, produces difficulties in the machine processing of language. On the basis of a study of abbreviating phrases in a large corpus of scientific writing, tentative

rules have been formulated for recognizing certain kinds of abbreviating phrases and locating the phrases in preceding sentences which they abbreviate. These rules need to be coded for incorporation into mechanical paraphrasing and abstracting routines.

Fact retrieval

A third group of projects could include a study of "fact retrieval." An attempt is now being made to ascertain the conditions at the interface between man and computer that will permit human requesters to communicate satisfactorily with a file of information elements. If adequate man-machine symbiosis can be achieved, it should be possible to supply the requester with the facts he needs, rather than with the document containing these facts. Some of the aspects being considered are the development of suitable request and storage languages, the formulation of complex information requests, and the potential of joint human-computer resolution of these problems.

Natural language processing

Extremely difficult to develop are computer programs that can process natural language information as if the meaning of the words were understood. Nevertheless, the information management field needs programs of this sort if it wishes to relieve the scientist, technician, businessman, or military commander of much of the burden of present day information-handling procedures. A present research project, known as Synthex, involves the development of computer programs that will enable a computer to accept a question in natural language, to analyze the syntax and the logical dependency relations of the question, to perform the functions necessary in searching the memory banks for the desired answer, and to output that answer in natural language.

To simulate human language behavior on a machine, research is needed which can describe what a human does when he is presented with a question, finds or develops the answer from a relatively vast body of intellectual experiences, and states that answer. Something like this process has been systematized and translated into a complex program of machine instructions. The program has operated successfully on several types of literature and is now undergoing additional refinements to permit the drawing of inferences about information in the file. The full application of such a capability is some years away.

The future of almost any management concept today depends on the way research affects the doctrine. Research in the information management field tends to embrace the four functional areas of pattern recognition, lexical processing (subject matter logic), decision-making, and encoding for communications and control.

Dr. Harold Wooster of the Air Force believes there are perhaps 13 research activities which seem most relevant to solving the problem. He identifies them as follows:

1. Self-organizing systems, or intelligent automata.
2. Multidimensional and weighting function theories.
3. Research in the biological sciences pertaining to sensory perception, neural networks, and memory.
4. Research in psychological and social sciences pertaining to intelligence and values.
5. Research in making computers self-programing (heuristic).

6. Research in encoding of basic information sources.
7. Research in linguistics and languages.
8. Research toward better quantization of value judgments.
9. Research in theoretical foundations for concepts, such as information, decision, recognition, and control.
10. Research in adaptive control systems.
11. Research in psychological and social sciences pertaining to concepts of control of other than physical things, such as attitudes, motivations, behavior.
12. Basic computer technology pertaining to high-speed, reliable content analysis, storage and retrieval, decision processes, encoding and decoding as a point of departure from high-speed arithmetic.
13. Basic technology pertaining to manifold increases in component miniaturization categories.

Applied research can be oriented in a variety of ways: (1) to settle agency differences on what should be standard practices; (2) to hasten the development of equipment which would increase the productivity of clerical work; (3) to provide a higher quality of supplies for office use; and (4) to provide systems models which could be copied in rapidly developing fields.

Without attempting anything other than a list of typical feasible projects, the following have been frequently broached:

Recordkeeping

The National Bureau of Standards has an experimental area at which it can simulate or enact any situation to test plumbing or heating materials, devices, and equipment. There is no "filing laboratory" where the Government can run tests on finding, sorting, or classifying papers. How much does shelf filing speed up retrieval? When does terminal digit filing increase production? Do fifth-cut folder tabs make filing more expensive than full-cut folders? When does phonetic filing pay off? The records community has no scientifically determinable answers to questions of this kind—questions which run into the hundreds in number.

Copy life expectancy

How long is a paper copy made by the various copying techniques readable? What kinds of quality control can be insisted upon? How long will magnetic tape, kalvar film, dry halide film, etc., last under what conditions of use? Government archival and records operations are hampered by not having reliable answers to questions of this kind.

Reduction in variety

Does the Government need to carry in stock as many differently sized envelopes, blank paper, folders, and forms as it does, and what would be the economics if the number were drastically reduced? Failure to know these answers is the reason more isn't being done about standardization.

Standard forms

Why does the Government have so few standard forms used across agency lines, and what would be the precise, computable advantages if more were standardized? Would some agency have to be given more authority than desirable to bring this about? The answers could mean dollars and cents savings.

Common classification

No thorough-going study has yet been made as to the fullest practical use of integration of data by a common classification. No one, single classification presently applies to all of the following potential applications: Correspondence coding and filing, directives coding and filing, forms coding, reports coding, mail routing, organization-unit coding, paperwork transaction coding, space occupancy, and telephone numbering.

No one knows how far such classification can go with advantage.

Distribution of directives

Too many copies of directives are printed everywhere in Government due to poor audience selection methods. Distribution research would explore functional classification, descriptor devices, codified user needs, user characteristics, up-dating master mailing lists, possibilities of further mechanization, and the like.

The preceding kinds of applied research could mostly be done by Government analysts in Federal facilities, once the funding were arranged.

The above perhaps is enough to indicate how much projects would vary in complexity and therefore would differ in the cost and length of time it would take to bring each project to successful completion. One of the present deficiencies in the Federal Government is that there is no central clearinghouse on what types of paperwork management research is currently being conducted by American industry. Since the details of such research are zealously guarded for profit and proprietary reasons—which is most understandable and as it should be—nevertheless industry relies heavily on market studies to learn whether to invest capital in some salable product. A Federal center for research in paperwork could provide industry some information of real value when industry is making market studies in depth.

Industry is almost blind when it comes to trying to guess whether a product can be marketed in the Federal establishment. Salesmen are constantly trying to sell items and articles to the Government which the paperwork management personnel are trying to persuade their superiors not to buy. It is a real cat-and-mouse game. The seller would have benefited greatly from an analysis by a Federal center telling him in advance what the strengths and drawbacks of his commodity were.

Similarly much equipment and many supplies now on the market could be improved. Federal users usually learn quickly what improvements would be welcomed. A Federal center could play a most helpful role in feeding to industry the comments of Federal users. There is no reason to believe that the comments of Federal users would be different from that of non-Federal users.

CHAPTER VIII. RECOMMENDATIONS

BASIS

In May and June 1964 this committee held a series of hearings that led to our "Federal Paperwork Jungle" report of February 18, 1965 (H. Rept. No. 52, 89th Cong., 1st sess.). There we made some 33 recommendations for improving the situation.

In May 1966 we again held hearings to determine how well our recommendations were being adopted and what new recommendations, if any, were called for, or whether we needed to modify any earlier conclusions. Also, in our 1964 hearings, we did not have the time to review the special (and heavy) reporting requirements of all agencies—especially the Department of Defense. The 1966 hearings were designed to take care of this deficiency.

Based upon our continued studies, investigations, hearings, and consultations, it is clear the Federal Government still is not meeting the challenge we put to it in our February 18, 1965, report. The recommendations which follow, therefore, should be considered as an extension of the committee's previous recommendations and as a strong reminder that departments and agencies have much yet to do in improving their paperwork policies and practices.

RECOMMENDATIONS

1. *There should be a professional staff, fully trained and experienced in paperwork management, available to heads of Federal agencies*

Department and agency heads should give increased attention to paperwork costs in time and money. They should, in accordance with the Federal Records Act, support a vigorous and sustained program for cutting paperwork costs.

The stakes are high. Even a 10-percent reduction would save over half a billion dollars a year.

There are personnel which can be utilized. Some estimates are that about 9,000 employees spend a majority of their time in organization, planning and systems studies. A little reorientation and training within this group should provide very adequately for the necessary paperwork analysis and improvement. At least half of this staff should have assignments to serve paperwork management needs.

2. *Paperwork management should be used as a method of providing continuous oversight of Federal agency performance*

Most administrators realize that problems should be solved early, and preferably before they arise. To do this requires systematic oversight. Paperwork management has proven to be a technique to solve many operational problems very early. An illustration defining the paperwork services which can contribute to this need, and showing how oversight is accomplished, is attached as appendix C.

3. Heads of agencies should require regularly recurring reviews, on a systems basis, of all of their major paperwork pipelines with a view to (a) eliminating delays, (b) substantially reducing effort, and (c) providing better service to the public

Departmental and agency management at all echelons should be knowledgeable in the concepts and practice of sound paperwork management principles. They should thereby be able to direct and accept paperwork management reviews in a manner which will be practical and effective.

Conditions under which programs work are continually changing. Even very good systems, after the lapse of 1 or 2 years, need to be reviewed. Successful review—which should be annual in frequency at least—requires that all echelons of management be knowledgeable and capable of useful participation.

4. Heads of agencies should aggressively maintain a proper climate of teamwork and cooperation between analysts, on the one hand, and activities they serve, on the other

The single greatest deterrent to paperwork improvement, other than lack of knowledge, is a fear of criticism. To improve one's operation is also to criticize how it has been done in the past. Only heads of agencies are in a position to give effective leadership in this regard. They can establish the policy that it is a virtue to improve, and that failure to change with the time is not condoned.

5. All agencies should improve the paperwork processes used to provide key data to agency heads and their subordinates

It has been widely noted that agency heads have great difficulty "keeping in touch." Paperwork systems and reporting methods frequently serve as screening devices to intercept data relating to problems and to emphasize generalities.

Few agency heads have useful indexes of progress. Very few have early warning of problems.

Data are provided to agency heads and their responsible officers in such quantity as to be almost meaningless. Yet, the few key data needed for direction and planning are usually missing or derived by individual officials through their own observation and analysis.

Good management demands a complete review of this area, concentrating on the paperwork system which should supply the missing key data.

6. Fewer but better records should be produced by Federal agencies

At present, there are 13 million cubic feet of records in Federal agencies. This is equivalent to over 3 years of accumulation.

Heads of agencies should take immediate steps to reduce these holdings by one-third. Certainly, an average of 2 years' accumulation in active office space is sufficient, considering the existence of organized storage areas, especially the Federal Records Center.

The second step should be to improve the quality of the records being accumulated. Certainly permanent and nonpermanent records should not be intermixed so that nonpermanent records are kept for unnecessarily long periods.

Also, "permanent" records should be reappraised. It is possible, based upon NARS studies, to reduce this category drastically.

7. The burden of paperwork imposed on the citizens by our Government should be greatly reduced

Heads of agencies should require that their personnel weigh carefully the needs for paperwork against the cost involved to citizens (and to their own agencies).

Many instances have been noted where a ratio of $2 is spent for every $1 of value to the Government. There are better systems and better means of achieving the ends. These systems and means should be searched out. Any value to the Government which costs more to establish than is realized should be abandoned without delay.

8. Better interagency paperwork processes should be developed as a Government-wide project beginning immediately

Almost all programs, but especially programs relating to urban problems, have a relationship to another governmental agency program. Much work is redone for lack of better interagency procedures. This is costly and time consuming.

Most citizens and citizen groups find that they must deal with more than one Federal agency for projects in which they become involved (education, civic improvements, welfare, etc.). Applications frequently become inactive because of failure to transfer jurisdiction or may be acted upon more than once. Certainly, more than one set of rules and procedures is usually involved.

Agencies tend to honor each other's sphere of activity, and do not take steps to standardize and clarify issues.

The facilities of the National Archives and Records Service are available to make, or consult in relation to, such projects.

The committee plans to inquire formally and informally into progress of heads of Federal agencies in establishing better interagency procedures.

9. Paperwork implication of legislation should be reviewed by the heads of all agencies so that appropriate remedies can be made by the Congress

Legislation frequently contains paperwork requirements, intentional and unintentional. Many governmental systems now suffer from past legislation which prescribed methods no longer applicable or used terms which imply unnecessary records or legal adjudication. Examples are found in shipping forms prescribed by law, such terms as "owner" (implying a need for legal determination), and special types of reports.

Department and agency heads should search out and identify such legislation for purpose of correction.

The precedent of such agencies, as the Department of Labor (which recently proposed a change which will save over $100,000 a year), should be studied.

This committee will aid in any such improvement. Also, the resources of NARS can be made available to assist in studies of this nature.

10. Special emphasis should be given to applying source data automation methods aimed at reducing the cost of using computers

Cost of input to computers has been stressed in previous chapters. The techniques of capturing data at its source into machine language will save much of this cost. Also, many of the simpler automation

needs of individual offices would be taken care of through adequate SDA applications.

There are workshops, guidebooks, and survey assistance available to aid heads of agencies to make better use of SDA.

11. Greater support should be given to the National Archives and Records Service program

This recommendation repeats and emphasizes the recommendations this committee made in 1965 (The Federal Paperwork Jungle, H. Rept. No. 52, dated Feb. 18, 1965, p. 106), as follows:

"The records management program of the National Archives and Records Service of the General Services Administration should be vigorously supported by the Congress and in the executive branch and should be expanded in the areas of paperwork simplification, standardization, and research. Individual departments and agencies should strengthen their records management in accordance with suggestions made in this report."

12. Professional training and refresher courses should be established, as part of the civil service training and career development programs, to assure a high level of competence among paperwork analysts

Definitions of responsibilities and actual practice of paperwork management functions in Government leave much to be done. There is a real need to provide a training program.

The program should consist of (*a*) annual refresher courses for analysts to acquaint them with new developments in the profession, and (*b*) basic courses to assure adequate foundation for professional paperwork management assistance within agencies.

13. A broad-gaged, organized program of research into all fields of paperwork practices and systems should be authorized and financed during the coming fiscal year

No organized governmental program covering research into paperwork systems now exists.

The committee feels that full-scale research programs at a $500,000 level should be authorized and financed during this fiscal year. A Federal center for research in paperwork should be considered.

14. Productivity standards for clerical employees should be developed without delay, with first priority of emphasis being given to clerical processes related to the computer technology

Clerical productivity has lagged far behind that of factory workers. Some of this lag has been due to a failure to improve equipment.

With the advent of automation, equipment support for office activities has greatly increased.

However, very little has been done to establish appropriate clerical standards, largely because of difference in systems. These differences are probably inherent in office activities.

In view of the conclusions summarized above, it is necessary for agency heads to develop realistic productivity standards for each major step in each paperwork system. From this base, it will be possible to (*a*) set goals and improve performance, and (*b*) uncover procedural steps which are unduly costly.

Office productivity requires that standards of performance be established as early as possible, and that system studies be made to assure that low productivity steps are improved. Improvement will come from better systems and better use of automation, especially source data automation.

APPENDIX

APPENDIX A. PARTIAL LIST OF PAPERWORK IMPROVEMENTS MADE BY FEDERAL AGENCIES

NOTE.—An interesting evidence of agency activity in saving paperwork, is the recently established annual awards for paperwork achievements sponsored by the American Management Society. The ceremonies are recognized and scheduled by the Civil Service Commission. The two awards ceremonies held thus far have honored over 40 agency analysts and managers. The dollar benefits derived by the Federal Government from the group so honored has totaled almost $200 million.

TREASURY, COMMERCE, AND JUSTICE

To indicate Presidential interest in paperwork, early this year the President wrote:

> Some of our brightest opportunities in research and development lie in the less obvious and often neglected parts of our transportation system.
>
> We spend billions for constructing new highways, but comparatively little for traffic control devices.
>
> We spend millions for fast jet aircraft, but little on the traveler's problem of getting to and from the airport.
>
> We have mounted a sizable government-industry program to expand exports, yet we allow a mountain of redtape paperwork to negate our efforts. Worldwide, a total of 810 forms are required to cover all types of cargo imported and exported. In this country alone, as many as 43 separate forms are used in 1 export shipment. Eighty separate forms may be needed to process some imports. This is paperwork run wild.
>
> I am directing the Secretaries of Treasury and Commerce and the Attorney General to attack these problems, through the use of effective systems research programs. And I have directed them to eliminate immediately unnecessary elements of redtape that inhibit our import and export programs.[1]

This is an example of how paperwork clusters about a system that reaches into a number of agencies and performs a variety of tasks. It also involves a sizable portion of the public. Some of the major types of paperwork involved have been:

(*a*) *Coast Guard shipping articles*

The shipping articles consist of a 12-part interleaved snap-out carbon form (the size is 15 by 30 inches) and 9 other forms. Files are maintained in the carriers' office, onboard ship, Coast Guard headquarters, and at each field office. The size and complexity of the forms necessitates manual procedures and handling. Installation

[1] From Weekly Compilation of Presidential Documents, Mar. 7, 1966 (vol. 2, No. 9, p. 311).

of the NARS proposed system will: (*a*) eliminate an estimated 10 persons in the Division of Merchant Vessel Personnel, (*b*) reduce the number of forms from 12 to 2, and (*c*) reduce the time required to engage and discharge seamen substantially.

(*b*) *Bureau of Customs vessel registration*

Here some 25 oversized and nonstandard forms (filed in separate binders) will be replaced with 2 forms (an application and a certificate of registry—both of which are standard 8 by 10½-inch forms). All the existing files will be replaced with a vessel folder bringing together all vessel papers into a single folder. The folder, filed by vessel name, will eliminate the need for locator card files and numerous binders that house vessel documents.

(*c*) *Bureau of Customs entry and clearance of vessels*

A recommended entry/clearance certificate has been referred to the United Nations (intergovernmental Maritime Consultative Organization) by the United States. There are 16 different forms covering entry and clearance required by Customs, Public Health, Agriculture, and Immigration and Naturalization Service. A way to satisfy the agencies can come from a single form (size 8 by 10½ inches). Also, part of the information received on the maritime vessel utilization report, Coast Guard shipping articles and Immigration (1–418 and 1–94) can be obtained from the recommended certificate.

(*d*) *Maritime Administration ocean bill of lading*

There were 400 to 600 individual bill of lading formats in use in the United States. There were two Government documents required on exports. These two forms were not compatible with the bill of lading formats. In addition, there are as many as 27 other documents required on export shipments. With the assistance of the east and west coast industry associations, it was possible to design a bill of lading format to replace the 400 to 600 different forms in use and make the new B/L format compatible with the 2 Government documents and the 27 industry forms. This approach reduced the typing for export shipments from 29 to a single reproducible master. From the master, all necessary documents in the desired number of copies can be reproduced. The estimated savings from this approach are about $8 million.

The standard ocean bill of lading is completed and is in use. However, the United States has been meeting with the Economic Commission for Europe (ECE) and the International Standards Organization (ISO) to seek a possible international bill of lading. This would permit through shipments from point of origin to destination without costly intermediate documentation.

(*e*) *Maritime Administration dictionary of standard commodity descriptions*

The dictionary is a technique developed by NARS to write standard commodity descriptions for an estimated 150,000 commodities representing 95 percent of regular shipments. A description would consist of a restricted number of descriptions starting with the most generic and then adding enough information about the commodity to satisfy the Government and industry requirements to move the

goods. Each description would have its own code for data processing to permit storage of the descriptions and to make it possible to sort the descriptions manually or mechanically into the principal trade classifications (i.e., schedule B, Census Classification, Standard International Trade Classification (SITC), Brussel Tariff Nomenclature (BTN), Standard Industrial Classification (SIC)).

(*f*) *Federal Maritime Commission, ocean freight tariff automation*

FMC is in the process of writing rules, developing the forms, and a commodity coding system to require the ocean shipping carriers (foreign and U.S. flag) to file their freight rate tariffs with the Commission. NARS recommended a coding system for the tariffs to reduce the effort and aline the system with the U.N.'s Standard International Trade Classification as well as the Census Bureau Schedule B, Export Classification System. This approach would permit carriers to rate bills of lading and document shipments with the same commodity description. Present operations require at least two different descriptions.

(*g*) *Maritime Administration vessel utilization reporting system*

A new vessel utilization reporting system has been designed and installed by Marad. The system combines four reports into a single form. Previously, inbound data was reported on one form and outbound on another. The new procedure increases reliability of data for carriers and the Government. The new form is precoded for data processing, making it possible to have reliable data available months (in some instances, 8 to 12 months) ahead of the previous system. The new system, 90 percent of which is accomplished on ADP equipment, eliminated all of the manual manipulation performed by the Office of Statistics. The Trade Route Division of that Office was transferred to the Office of Government Aid and the rest of the office was abolished.

At present, Marad has five key-punch operators at Coast Guard to obtain data needed. These data, as well as more complete data will be obtained as a byproduct from the revised "Shipping Articles Study" that NARS is doing for Coast Guard.

(*h*) *General Accounting Office and General Services Administration Government bill of lading*

At present, Government shipments move under Government bills of lading shipping instructions. Also, each mode of transportation documents the shipment using their paperwork in addition to the GBL. NARS has recommended that the format of the GBL be alined with the national standard ocean bill of lading and be printed on a reproducible master to avoid retyping the same data for each mode of transportation.

Final adoption is pending on the outcome of a bill in the House of Representatives to eliminate the law which prohibits prepayment of freight charges. If the law is eliminated, GBL's will no longer be needed. On the other hand, if the law is not changed, the format of the GBL will be alined with the national standard ocean bill of lading.

NAVY DEPARTMENT

The Department initiated a comprehensive review of reports and forms on August 10, 1964. A summary by the Secretary (see below) notes the elimination of 12.1 percent of the total number of reports and 14.6 percent of forms used throughout the entire Department. Additionally, it shows that participating activities improved a total of 8,460 reports and forms by reducing frequency, respondents, items to be submitted, etc. A key figure on the summary is the estimated annual man-hours released, 5,253,205. The totality of these savings will be realized—and the manpower redirected—only if there is effective followup. A notice was issued in July 1965, to all Navy ships and stations stating that all commanding officers were to initiate actions to assure that the decisions to eliminate, reduce, or improve reports and forms were put into effect.

Item	Total	Percent	Reports	Percent	Forms	Percent
Reviewed	158,846		35,565		123,281	
Estimated annual workload, man-hours	84,682,460		21,825,150		62,857,310	
Eliminated	22,286	14.0	4,305	12.1	17,981	14.6
Improved	8,460	5.3	1,664	4.6	6,796	5.5
Estimated annual man-hours released	5,253,205	6.2	1,473,369	6.7	3,779,836	6.0
Other benefits (material, equipment, space, machine hours, etc.)	691,852		320,256		371,596	
Recommendations made to other organizations to eliminate or improve	5,239		353,323		161,916	
Estimated annual man-hours releasable	518,702		355,121		163,581	

NAVY AND MARINE CORPS

Project SCRAP commenced its paperwork reduction activities in the Navy and Marine Corps on July 1, 1964. A summary report from the Office of the Navy Inspector General on December 4, 1964, indicated the following achievements:

1. The pruning of directives files at the individual command level throughout the service had resulted in elimination of 18,402 directives (8.3 percent of the total number in effect), and the improvement of 22,552.

2. Reduced the allowances of naval tactical doctrine publications held unnecessarily by the operating forces by 15,300 copies. This reduces preparation and printing costs and manpower required to enter changes, as well as space requirements.

3. Initiated a revised instruction for the operation of the Navy directives system.

4. Prescription of a new Navy standard letter form to reduce effort and cost.

5. The collection of data from several fleet units to determine the feasibility of automating reports at that level.

6. Receipt of large numbers of profitable suggestions from personnel throughout the fleet in response to SCRAP's personnel suggestion campaign for reducing paperwork.

7. Continued progress in efforts in a large number of areas promising to lead to a reduction of reporting and paperwork requirements.

DEPARTMENT OF AGRICULTURE

In 1964 the Department held its first departmentwide review of reports. That review was required by Secretary's Memorandum No. 1559 and included all reports submitted to our national offices. The Department later completed a second phase of the review which included those reports required by State or comparable level organizations.

As a result of these 2 reviews, 318 reports were eliminated and 300 others improved. The total savings realized from these actions was $630,296. This figure did not include the value of improvements to 34 USDA reports made since the end of the first review.

A summary of agency eliminations during these reviews is given below:

Agency	Reports eliminated by—		Savings reported by—		Total savings
	National office	Field office	National office	Field office	
Agricultural Research Service	9	18	$25,500	$23,068	$48,568
Agricultural Stabilization and Conservation Service	38	58	134,556	32,010	166,566
Commodity Exchange Authority					
Consumer and Marketing Service	11		28,974		28,974
Cooperative State Research Service					
Economic Research Service					
Foreign Agricultural Service	3		54,628		54,628
Federal Crop Insurance Corporation	1		1,157		1,157
Farmer Cooperative Service			1,162		1,162
Federal Extension Service	2	3	4,425	1,500	5,925
Farmers Home Administration	2	3	2,634	2,897	5,531
Forest Service	7	75	89,111	55,182	144,293
International Agricultural Development Service					
National Agricultural Library	31		3,719		3,719
Office of Management Services			4,000		4,000
Rural Community Development Service					
Rural Electrification Administration	11		10,206		10,206
Soil Conservation Service	4	26	6,746	42,790	49,536
Statistical Reporting Service					
All staff offices	16		106,031		106,031
Total	135	183	472,849	157,447	630,296
Total	318				

AGRICULTURE

In September 1965, the Department surveyed all forms originated in USDA down to and including State or comparable levels. The survey called for information concerning the extent of forms control capability and data on numbers of forms added, revised, and in use, among other items. The Department encouraged the review of individual forms and suggestions to take place during the survey.

In February 1966, the results of the survey were published. The survey indicated the use of approximately 59,000 different forms in the Department. Some 12,000 of these were Washington forms; 47,000 were field forms. Printing costs for these forms exceeded $2.4 million. Accepting the total cost of a form to be 20 times its printing cost, the Department's estimated investment would be about $48 million each year for work involving forms.

The survey additionally revealed:

1. Less than one-half of their agencies conducted training in forms work either in Washington or the field.

2. Almost 80 percent of the total forms were developed at the field level. Only one agency had full-time trained analysts at that level. In other agencies, personnel with limited forms experience were developing most of the Department's forms.

3. Almost 35 percent of the field forms were uncontrolled, implying that these forms were designed and put into use by people with no forms training.

4. There were a total of 30.8 full-time man-years devoted to forms analysis in Washington and the field. Five agencies accounted for 29 of these man-years. There appeared to be a relationship between the number of full-time man-years devoted to forms and the number of Washington and field controlled forms in existence. Similarly the number of full- or part-time man-years available in the field appeared to relate to the number of uncontrolled forms in existence.

5. Two agencies appeared to have a disproportionate number of field forms as compared to the number of forms which were standardized agencywide.

These facts, and the summary of findings, were brought to the heads of Department agencies, with the statement that they study the results of the survey in light of their own commitments to their forms programs and offering to help and support any agency needing assistance.

DEPARTMENT OF INTERIOR

In 1964 the Bureau of Land Management established a subject classification functional listing with numerical codes for every Bureau activity. They then reorganized everything that the Bureau does in the form of paper to tie into this functional listing. This included the manual system, all Bureau regulations in the Code of Federal Regulations, forms, letters, memorandums, information booklets, and all publications. The system thereby provided for use of the same subject classification coding in any document that the Bureau issued. The public, as well as the Bureau personnel accepted the new system readily without reservations and since the installation, in late 1964, the system has had no major problems and has worked exceedingly well, especially at the field level. The Bureau has converted about 5,000 directives pages since installation of this system which applies to about 125 field installations as well as the headquarters office.

FEDERAL AVIATION AGENCY

Between 1965 and 1966, the FAA installed a new audience-oriented directives checklisting (cataloging) system for all FAA directives issued at every level of the Agency. The result is a series of checklists in the hands of all the different field audiences which permit them for the first time to accurately and reliably maintain and readily use their directives files. The product was achieved with a net reduction of nearly 2 million catalog pages a year and an anticipated 3.5 million page one-time cleanout of directives files.

There are 45,000 employees of the FAA who are affected. These employees also deal with the public and require accurate, current, and reliable instructions for such relations.

Each field office of FAA quarterly receives a list of all directives issued by headquarters, regional offices and area offices which apply to that office. Each list is tailored to match both the office's functional and organizational needs. This provides a means for each field office to quickly verify the completeness and currency of their directives. The verification cost is approximately $31,000 per quarter in clerical man-time in approximately 1,750 field offices. Previous verification was estimated at $176,000 per quarter.

Through reduction in irrelevant directives, reference time has been simplified, estimated on the basis of one reference per day in each field office, to amount to a savings in 1 year of 9,000 man-hours or $50,000 of professional man-time.

SMALL BUSINESS ADMINISTRATION

The Small Business Administration started an intensive campaign for directives improvement in January 1962. The first concern was that the field personnel were not following the instructions issued by Washington. Based on a sampling of 150 directives (of 100 words each) there was a fog index of 23, i.e., in order to understand them one would need to be a college graduate with 7 years of postgraduate work. With the full support of the Assistant Administrator for Management, who had the support of the Administrator, the SBA established a mandatory requirement that no directive be issued with a fog index of more than 12, i.e., require no more than the understanding of a high school senior. They made only one exception for highly technical material which could reach an index of 14, or be understandable to a sophomore in college. To monitor the program they used one professional writer who had 10 years of reviewing experience. By applying the regulation first to one office they proved that controlling the fog index could be done. Their proof was presented to the Administrator's staff. They then arranged for NARS to provide the directives management workshop to 120 Washington employees. Several hundred copies of the booklet "How To Take the Fog Out of Writing" were given to Washington and field office writers. The mandatory requirement was dropped after 2 years. Recent checks indicate that the fog index still averages 14.

During the intensive campaign to reduce the fog index, all directives material was channeled to a central control division. This has continued. The division also receives a copy of all materials reproduced. This exemplifies the results that can be achieved when a program has top support within an agency.

DEPARTMENT OF STATE

Reports improvement program, 1964–66—49,608 reports eliminated, 1,760 reports simplified, 22,120 reports consolidated, and 280 reports reduced in frequency.

HEALTH, EDUCATION, AND WELFARE; GENERAL SERVICES ADMINISTRATION; BUREAU OF STANDARDS, COMMERCE; NATIONAL AERONAUTICS AND SPACE ADMINISTRATION; AGRICULTURE; BUREAU OF CENSUS, COMMERCE; TREASURY

Each of the above agencies has held a "records cleanout," between January 1963 and June 1966. The "cleanout," as the term suggests, is a short-term campaign to dispose of unneeded records, publications, and reference materials. Sending records to records centers becomes a form of disposition. The campaigns are meant to free prime space and equipment.

In addition, Federal executive boards in several cities have sponsored records cleanouts in their areas as part of their program to encourage general administrative improvements. "Operation Purge" in Chicago, completed in June 1966, is typical. About 60,000 cubic feet of records were transferred or destroyed and about 9,200 filing cabinets were cleared. In Atlanta, during calendar year 1965, a FED-sponsored drive resulted in the transfer or destruction of about 26,000 cubic feet of records and the clearing of about 3,500 filing cabinets.

Since part of the campaign is a score-keeping phase, agencies which stage "cleanouts" know the kind of results they obtain for their effort. Every agency which has so far held a "cleanout" campaign reports exceptional benefits for the energy expended. The following table depicts the principal benefits:

Agency	Volume destroyed (cubic feet)	Volume transferred (cubic feet)	File cabinets released	Reduction in agency holdings (percent)
Health, Education, and Welfare (1963)	23,500	7,300	946	4.0
General Services Administration (1964)	11,712	11,693	1,802	23.0
Bureau of Standards (1965)	8,000	1,600	1,280	25.0
General Services Administration (1965)	22,679	24,738	3,526	33.0
National Aeronautics and Space Administration (1965)	38,589	5,657	898	19.3
Agriculture (1966)	79,395	25,072	13,928	11.0
Bureau of the Census (1966)	14,292	2,791	100	16.0
Treasury	51,727	41,553	----------	8.5

VETERANS' ADMINISTRATION

"Project 100 Forms" is the Veterans Administration's title for a cost reduction effort in the forms management area. Especially, the project identified the 100 forms which have the highest annual cost. This select group of forms was then subjected to a close study of all extra-cost features. The objective was to reduce printing costs or effect other economies.

The first phase of the project published a tabulation of VA's 100 most expensive forms ranked in descending order of annual cost. This top group out of some 4,000 standardized forms and form letters accounted for an annual expenditure of $888,000 or 44 percent of a $2 million total outlay for forms. This served to focus attention on a very significant item of expense.

The next step was an item-by-item analysis of all extra cost features. While this varied form to form, the starting place was generally a comparison with base printing costs, which will give some indication of what the extras are costing. This phase required the joint efforts

of forms technicians, management analysts, and operating people. Nothing was exempt from consideration—usage patterns, construction, even the procedure back of the form may come in for questioning.

VETERANS' ADMINISTRATION

In 1965 a mail study to reduce costs and improve service in the Veterans' Administration proved to be notable. As a result of a concerted effort, $350,000 was saved in postage costs and $110,000 was realized from reduced salaries. The above savings resulted from restricting the use of registered mail, airmail, special delivery, certified mail, establishing blanket mail envelopes for 240 field operations, and mailing insurance notices once a year instead of monthly.

Many similar improvements have been made in other agencies—Labor Department; Maritime Administration, Commerce Department; and Bureau of Customs, Treasury Department are a few good examples.

TREASURY

In the Division of Disbursement, Bureau of Accounts, the elimination of paper check issue records in favor of microfilm has resulted in very significant tangible savings and operational improvements.

1. Cumulative savings in personal services and materials costs since 1950 aggregate over $2.5 million.
2. A tremendous reduction in storage space requirements has been attained. If paper check copies were being used today, an additional 60,000 square feet of space would be needed at an annual cost of over $250,000. Cumulatively since 1950, savings in the cost of space would total more than $2 million.
3. The speed of recording check issue records has increased 70 times since 1950. This, by itself, is of significant help in handling large workloads.
4. Serviceability of check issue records improved almost beyond comparison. Searching time has been reduced by over 80 percent.
5. The durability or lasting qualities of microfilm far exceed that of paper when it is subjected to consistent use.
6. The flexibility that microfilm offers as compared to paper records is most important. Microfilm is relatively easy and economical to reproduce and transport.

The use of microfilm in the Division of Disbursement has had a profound effect on productivity. In fiscal year 1949, one employee could, in effect, completely process 61,000 checks a year. (Total checks issued divided by total paid man-years.) In fiscal year 1965, 1 employee completely processed 299,000 checks, or five times as many as in 1949. The elimination of paper check issue records in favor of microfilm, and consistent improvement of the microfilming techniques, contributed in no small measure to this increase in productivity.

Employee output has increased at an average rate of 10.5 percent each year since 1949. In terms of total costs, productivity has increased, during this same period, at an average rate of 7.2 percent.

TREASURY DEPARTMENT

The Internal Revenue Service is now producing on microfilm the business taxpayer directory, index, and settlement data listings. This comes as a further refinement to the automation of tax returns. Microfilm is centrally produced at the National Computer Center, Martinsburg, W. Va., and distributed to all using offices.

Film production is accomplished at 12 times the speed of paper list printing; and use of film reduces record storage space by 90 percent, record weight by 95 percent, and information retrieval time by 50 percent. Print time saved in each service center has been reflected in reduced computer time requirements, and space savings have relieved to some extent the space shortages in the Chamblee and Philadelphia service centers. Total annual savings of 4 man-years and $278,700 are the annual benefits.

POST OFFICE DEPARTMENT

Almost 100,000 man-days were saved by the Post Office Department through an improved system of reporting work hours. Almost equivalent savings are anticipated from newly simplified paperwork procedures now being tested and installed. These new projects include personnel processing (source data automation application), mobile postal activities (reporting and recording), and claims processing (procedures and correspondence). Other studies recently begun in Seattle, Portland, and Kansas City show great promise.

APPENDIX B. EXAMPLES OF BENEFITS TO FEDERAL AGENCIES FROM CORRESPONDENCE WORKSHOPS

AGRICULTURE

Verbiage reduced 40 percent. Rewrites decreased 20 percent. Ninety percent of letters answered within 5 days. Farmers Home Administration, St. Louis.

Letters now average 12 to 15 typed lines instead of 23 to 29 lines. Dictation and transcription time reduced about 17 percent, annual savings of 625 man-hours. Farmers Home Administration, Atlanta.

Rewrites cut in half, secondary reviews nearly eliminated, except on policy matters. Agricultural Research Service, Albany, Calif.

Length of letters reduced by 20 percent, resulting in estimated savings of 1,500 man-hours annually. Forest Service, San Francisco.

ARMY

Verbiage reduced 25 percent. Fifth Army Area Support Center, Headquarters, St. Louis.

Verbiage reduced 20 percent. Transportation Supply and Maintenance Command, St. Louis.

Verbiage reduced 25 percent. Engineer District, Corps of Engineers, St. Louis.

GENERAL SERVICES ADMINISTRATION

Quality of letters increased 50 percent, rate of production increased 20 percent. Regional office, Denver.

INTERIOR

Reviewing time reduced 30 percent, signer's reading time decreased 20 percent, rewrites cut 10 percent, and followup and explanatory correspondence reduced 50 percent. Bureau of Reclamation Regional Office, Denver.

U.S. COAST GUARD

Verbiage reduced 10 percent. Second District, St. Louis.

U.S. COURTS

Letters shortened 25 to 30 percent (26,000 letters a year). Presentence reports running 10 to 12 pages reduced by at least 1 or 2 pages. Federal Probation Training Center, U.S. Probation Office, Chicago.

VETERANS' ADMINISTRATION

Correspondence workload reduced 10 percent by elimination of 56,400 followup letters a year as result of improved clarity and simplicity in original letters; 3,600 man-hours saved a year (transcrip-

tion only) due to shorter, simpler letters. Dictator now getting 15 letters instead of 4 on dictating disk. Regional office, Nashville.

Verbiage reduced 50 percent and 94 percent of letters now answered within 5 days. Regional office, St. Louis.

New Form or Guide Letters Developed

AGRICULTURE

8,000 letters formerly dictated or handwritten replaced by form and guide letters. Commodity Stabilization Service, Chicago.

12 new form letters will save approximately 6,000 dictated letters annually. Commodity Stabilization Service, Portland.

ARMY

10 new form letters developed, 3 revised, replacing 10,560 letters a year. Engineer District, Corps Engineers, New York.

10 new form letters developed, replacing 6,400 letters a year. Ordnance Corps, Watervliet Arsenal, N.Y.

32 new form letters developed, 11 revised, replacing 48,000 letters a year. Headquarters, 1st Army, Governors Island, N.Y.

7 additional form letters developed, replacing 19,200 letters a year. Training Center, Fort Dix, N.J.

25 new form letters developed, replacing 13,000 letters annually. Post headquarters, Fort Meade, Md.

60 new and 15 revised form letters developed, replacing 60,000 letters a year. Fifth Army Area Support Center, headquarters, St. Louis.

40 additional form letters developed replacing 60,000 letters a year. Transportation Supply and Maintenance Command, St. Louis.

DEFENSE

5 new form letters developed, replacing 11,000 letters a year. 35 new guide letters developed, replacing 50,000 letters a year. U.S. Armed Forces Institute, Madison, Wis.

GENERAL SERVICES ADMINISTRATION

28 form letters developed with annual usage estimated at 21,500. Regional office, Dallas.

16 new form letters developed, replacing 12,324 letters a year. Regional office, Atlanta.

INTERNAL REVENUE SERVICE

4,000 form and guide letters in 10 District offices being consolidated into 350 standardized letters. Regional office, San Francisco.

16 new form letters, 7 new guide letters developed, replacing 20,600 letters a year. District office, Syracuse.

18 new form letters, 1 new guide letter developed, replacing 57,000 letters a year; 34 form letters revised. District office, Albany, N.Y.

JUSTICE

Standard paragraphs being developed for recurring language in court pleadings to minimize dictation. U.S. Attorney's Office, Spokane.

POST OFFICE

Most of correspondence regarding hire of Christmas employees now handled by form and guide letters. U.S. Post Office, Seattle.

RAILROAD RETIREMENT BOARD

5 form letters, 7 new guide letters developed, replacing 4,800 letters per year. Regional office, New York.

SELECTIVE SERVICE SYSTEM

8 new guide letters will save preparation of 12,000 dictated letters a year. State office, Portland.

STATE

Through improved form and guide letters, dictating time reduced from 4 hours daily to 1 hour, correspondence backlog eliminated. Passport Agency, San Francisco.

U.S. COAST GUARD

50 new form letters developed, replacing 5,000 letters annually. First District Headquarters, Boston.

VETERANS' ADMINISTRATION

Proportion of form and guide letters increased from 70 to 90 percent of all correspondence written through new guide letters and pattern paragraphs. Regional office, Syracuse.

Form or Guide Letters Eliminated

ARMY

6 form letters with an annual usage of 6,000 eliminated, saving 900 man-hours. Transportation Terminal Command, Fort Mason, San Francisco.

Copies of Correspondence Eliminated

AGRICULTURE

60,000 extra copies eliminated per year. Farmers Home Administration, St. Louis.

3,000 copies eliminated a year. Commodity Stabilization Service, Chicago.

ARMY

One copy of most outgoing correspondence eliminated; about 60,000 pieces a year. Headquarters, 1st Army, Governors Island, N.Y.

Preparation of extra copies reduced by 200,000 annually. Engineer district, Corps Engineers, New York.

200,000 copies eliminated annually, Transportation Supply and Maintenance Command, St. Louis.

100,000 extra copies eliminated per year. Engineer district, Corps Engineers, St. Louis.

50,000 copies eliminated a year. Post Headquarters, Fort Meade, Md.

35,000 copies eliminated annually by cutting out one copy on outgoing correspondence. Letterman Army General Hospital, San Francisco.

36,000 reading file copies discontinued. 10,000 file copies eliminated annually by use of one form letter. Engineer district, Corps Engineers, Seattle.

INTERIOR

15,000 extra copies of correspondence eliminated. Bonneville Power Administration, Portland.

6,000 (reading file) copies a year eliminated. Fish & Wildlife Service Regional Office, Boston.

LABOR

3,600 copies eliminated a year. Bureau of Employees Compensation, Baltimore.

SELECTIVE SERVICE SYSTEM

11,430 copies eliminated a year. State office, Baltimore.

U.S. COAST GUARD

5,000 extra copies eliminated annually. First District Headquarters, Boston.

30,000 extra copies eliminated. Second District, St. Louis.

U.S. COURTS

80,000 copies eliminated a year. Federal Probation Training Center, U.S. Probation Office, Chicago.

VETERANS' ADMINISTRATION

40,000 copies eliminated annually. Regional office, St. Louis.

Reviews or Clearances Eliminated

AGRICULTURE

15,000 reviews and clearances eliminated annually. Farmers Home Administration, St. Louis.

Reviews cut from 4 to 2 on routine letters, eliminating 16,000 reviews a year. Commodity Stabilization Service, Chicago.

ARMY

Reviews or clearances of correspondence reduced on an average from 4 to 2 per letter, saving 80,000 reviews a year. Engineer district, Corps Engineers, New York.

Review of correspondence cut from 3 to 1 per letter, saving 130,000 reviews a year. Training Center, Fort Dix, N.J.

Reviews cut approximately 50 percent or 90,000 a year. Transportation Supply and Maintenance Command, St. Louis.

Reviews or clearances reduced an average of 1 per letter or 60,000 per year. Engineer district, Corps Engineers, St. Louis.

All 5 reviews of transmittals of engineering drawings eliminated, totaling 13,500 a year. Engineer district, Corps Engineers, Seattle.

DEFENSE

Reviews cut from 2 to 0 on routine letters, eliminating 33,280 reviews a year. U.S. Armed Forces Institute, Madison, Wis.

U.S. COAST GUARD

Reviews cut from 4 to 2, eliminating 15,000 a year. Second District, St. Louis.

VETERANS' ADMINISTRATION

Reviews reduced 50 percent on 564,000 letters a year. Regional office, Nashville.

Improved Endorsement Procedures

ARMY

At least 10 percent of endorsements stamped in lieu of typing, saving 300 man-hours. Engineer district, Corps Engineers, New York.

Use of rubber stamp endorsements result in 300 man-hours saved per year. Transportation Supply and Maintenance Command, St. Louis.

Ten percent of correspondence given stamped endorsement with man-hours savings of 2,400 a year. Engineer district, Corps Engineers, St. Louis.

U.S. COAST GUARD

Stamped endorsements replace 1,000 letters annually. First District Headquarters, Boston.

More Use of Correspondence Equipment

AGRICULTURE

Installation of Correspondex released two review clerks for other duties, reduced need for typist 50 percent of time (about 5,000 man-hours). Commodity Stabilization Service, Chicago.

Five hundred man-hours saved. Forest Service, Denver.

ARMY

Better use of correspondence equipment saved 750 man-hours to date. Transportation Supply and Maintenance Command, St. Louis.

GENERAL SERVICES ADMINISTRATION

Five hundred man-hours saved. Regional office, Denver.

HOUSING AND HOME FINANCE AGENCY

Additional dictaphones and transcribers have resulted in savings of 600 man-hours. Regional office, Fort Worth.

NATIONAL LABOR RELATIONS BOARD

Installation of dictaphones and transcribers has resulted in annual savings of 832 man-hours. Regional office, Fort Worth.

APPENDIX C. PAPERWORK SERVICES WHICH CAN BE USED TO PROVIDE HEADS OF AGENCIES WITH CONTINUOUS OVERSIGHT OF PERFORMANCE

The following paperwork services are defined, first to show the services they render, and second the performance problems they reveal.

It is assumed that an adequate paperwork systems group will also be available to carry through on the leads revealed by the services.

The suggestions in this appendix should not be taken as a staffing pattern. One analyst could have several assignments, depending upon the workload.

Services and problems revealed are:

1. RECORDS SERVICE

Staff management to a total network of filing stations. Provides continuous network assistance on recordkeeping. Provides effective system of usable records.

Reveals—

(*a*) backlogs
(*b*) changes in subject emphasis
(*c*) rehandling
(*d*) overlap of activities
(*e*) faulty documentation
(*f*) trends in data needs and uses.

2. FORMS SERVICE

A personalized review and design service provides well-conceived and well-designed forms at a considerable saving of effort on the part of officials.

Reveals—

(*a*) needs for procedural improvements
(*b*) possibilities for obtaining common, compatable data
(*c*) possibilities for substantial production and stocking savings
(*d*) opportunities for automating at the source (source data automation).

3. REPORTS SERVICE

Analysis to provide simple, timely, more informative, less expensive reports.

Reveals—

(*a*) problem areas arising from possible breaks in procedure
(*b*) unnecessary paperwork (weekly compilations when really needed only semiannually, etc.)
(*c*) narrative compositions which could be changed to simple forms

(*d*) key data failures
(*e*) information system failures
(*f*) inconsistency of managerial data
(*g*) overlapping
(*h*) costly practices.

4. DIRECTIVES SERVICE

Clearinghouse and distribution point for official orders, instructions, and notices.

Reveals—

(*a*) changes in program and administrative activities
(*b*) needs for improvements
(*c*) system problems
(*d*) overlapping
(*e*) impending changes in workload
(*f*) interagency problems
(*g*) procedural effectiveness to support programs and policies.

5. MAIL AND CORRESPONDENCE SERVICE

Staff management analysis to assure prompt delivery and dispatch service, with especially prompt interoffice service. (Would not operate the mailroom.) Maintains correspondence standards.

Reveals—

(*a*) trends in workload
(*b*) growth of backlogs
(*c*) scheduling problems relating to delivery of communications
(*d*) paper rehandling
(*e*) need for improvements in signing delegation
(*f*) clearance problems
(*g*) public inquiry and complaint trends
(*h*) unresponsive letters
(*i*) need for form letters or mechanization of correspondence.

6. SOURCE DATA AUTOMATION SERVICE

Engineers systems around the "working" desk to assure effective adjustment to and use of automation. Obtains "machine language" as close to the source as possible, usually as a byproduct of an early activity. Supplants manual paperwork activities with equivalent machine products. Redesigns forms and systems to be responsive to automation.

Reveals—

(*a*) opportunities for improving "program-to-client" relationships
(*b*) methods for eliminating costly and time-consuming card-punching or other input makeready steps
(*c*) interoffice relationships capable of productive improvements
(*d*) acceptable time frames
(*e*) opportunities for reducing client effort by use of "turn-around" documents in or related to machine language
(*f*) means of developing and improving data banks
(*g*) needs for retraining of personnel
(*h*) possibilities for improving communications.

7. MANAGEMENT INFORMATION SERVICE

Provides an effective review forum to coordinate progress, and assures a "unity-of-purpose" among agency officials.

Reveals—

(*a*) system deficiencies
(*b*) need for administrative support
(*c*) reporting inadequacies.

APPENDIX D. NATIONAL ARCHIVES AND RECORDS SERVICE ORGANIZATION CHART

OFA P 5440.1 CHGE 13
December 28, 1964

DISTRIBUTION OF NARS Personnel Resources
1 July, 1966

Total employment	*1820*
Office of Records Management	*90*
Office of Federal Records Centers	*1215*
Other NARS	*515*

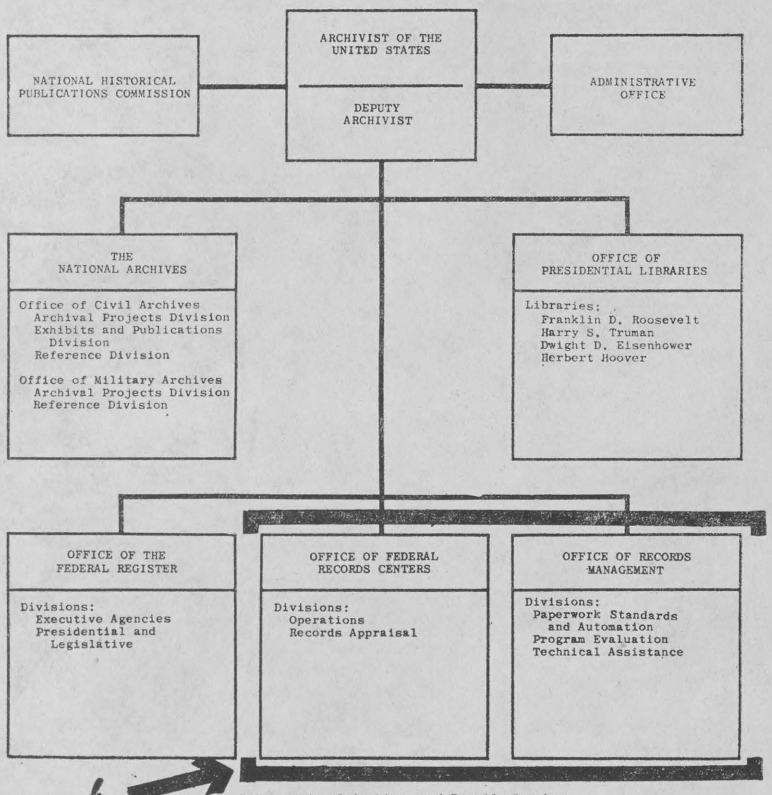

Figure 7-1. National Archives and Records Service Organization Chart

Paperwork Management

APPENDIX E

THE WHITE HOUSE,
Washington, D.C., September 22, 1966.

Memorandum for heads of departments and agencies.

Federal agencies spend approximately $60 million annually for new office furniture, file cabinets, and typewriters.

There are about 13 million cubic feet of records in office space occupied by the various executive branch agencies.

There are close to 34 billion pieces of paper in 2 million file cabinets.

Last year I directed the General Services Administration, in cooperation with other Federal agencies, to reduce the need for the purchase of new items of office equipment by:

Redistribution of existing equipment,
Repair and rehabilitation of existing equipment, and
Disposal of unneeded records and papers.

I declared a moratorium on the purchase of new file cabinets. Agencies were instructed to meet their current needs for file cabinets by:

Destruction of old records, and
Transferring records to Federal records centers.

This program is working. Over $3.6 million was saved during the first year of the moratorium on file cabinet purchases alone. These savings are continuing, with purchases still running less than 40 percent of the purchases before the moratorium.

In carrying out the objectives of the moratorium, several departments conducted nationwide cleanout campaigns to dispose of unneeded records, publications, reference materials, furniture, equipment, and supplies. On average, these campaigns reduced the paper held in offices and work areas by 20 percent. Through such campaigns five agencies:

Released 20,000 file cabinets for other uses,
Destroyed 160,000 cubic feet of records, and
Transferred to storage 60,000 cubic feet of records.

I want every department and agency head to take similar action. He should assure that every official, every supervisor, and every employee in his organization disposes of unneeded records, publications, reference material, furniture, equipment, and supplies.

If records are not needed for current use, or should not be destroyed, they should be sent to Federal records centers. Here they can be stored for less than 10 percent of the cost of storage in office space.

Unneeded furniture, equipment, and supplies should be turned in for distribution where needed.

These actions can help reduce lower priority Federal expenditures in accordance with the immediate action program I set forth in my economic message of September 8, 1966.

Schedules for individual departments and agency programs should be worked out with the General Services Administration in order to insure:

Thorough preparation for agency programs,
Orderly disposition of unneeded records and materials, and
Minimum interference with public business.

The program should be spread as evenly as possible over a 1-year period, beginning September 1966.

Departments and agencies which have completed similar programs since January 1, 1965, need not schedule new ones before September 1967.

I would like each department and agency head, within 30 days of the close of this program, to report to me, through the Budget Director, on the results achieved.

LYNDON B. JOHNSON.

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